



NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

OFFICE OF SPACE SCIENCE (OSS)
GUIDEBOOK FOR PROPOSERS
RESPONDING TO A
NASA RESEARCH ANNOUNCEMENT (NRA)

- January 2001 -

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INTRODUCTION

• INTRODUCTION TO THIS *GUIDEBOOK*

This *Guidebook* describes the policies and procedures for the Broad Agency Announcement known as the NASA Research Announcement (NRA) that will be used by the Office of Space Science (OSS) of the National Aeronautics and Space Administration (NASA). Until otherwise noted in the individual NRA, all proposers who plan to respond to a NRA issued by NASA's OSS should adhere to the guidelines contained in the main *OSS Guidebook* Chapters 1, 2, and 3. The appendices provide ancillary information about the NRA policies, as well as the policies and procedures for the review of proposals and the implementation of awards. Note that it is expected that this January 2001 edition of the *OSS Guidebook* will be replaced by a *Guidebook* that will be applicable to all program offices at NASA Headquarters that issue NRA's sometime later in 2001.

This *OSS Guidebook* can always be found by opening "Research Opportunities and Data" from the menu on the OSS homepage at <http://spacescience.nasa.gov> or by directly opening the WWW location:

<http://spacescience.nasa.gov/research/ossguidebook/>

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• INTRODUCTION TO NASA'S SPONSORED RESEARCH PROGRAMS

The National Aeronautics and Space Administration (NASA) is an independent Federal Agency of the United States (U.S.) created by the National Aeronautics and Space Act of 1958. The NASA Mission, as stated in the NASA Strategic Plan (<http://www.hq.nasa.gov/office/nsp>) is:

- To advance and communicate scientific knowledge and understanding of the Earth, the solar system, and the universe;
- To advance human exploration, use, and development of space; and
- To research, develop, verify, and transfer advanced aeronautics and space technologies.

In pursuit of these goals, NASA's programs are organized into five Strategic Enterprises called:

- Space Science,
- Earth Science,
- Biological and Physical Research,
- Human Exploration and Development of Space, and
- Aero-Space Technology.

These Enterprises pursue these goals using a wide variety of ground, aeronautical, and space-based programs. Examples of such programs are manned and unmanned missions to explore and study the planet Earth, the Solar System, and the universe; life,

microgravity, and applications research using the Earth-orbiting Shuttle and Space Station; and ground- and space-based programs and facilities to develop advanced aeronautics and space systems of all kinds.

In the pursuit of these goals, NASA funds thousands of proposals each year to study the natural phenomena of the Earth and the cosmos, life sciences, materials sciences, and advanced technologies that have application for aeronautic and space transportation systems. In addition, NASA solicits proposals to foster aggressive programs aimed at education and public outreach and to ensure maximum participation by small businesses and small disadvantaged businesses in NASA programs. Further material about all of NASA's many interests and programs may be found through links starting at the NASA homepage at <http://www.nasa.gov/>.

NASA carries out these research activities by soliciting proposals through a variety of announcements, including the Announcement of Opportunity (AO), the NASA Research Announcement (NRA), and the Cooperative Agreement Notice (CAN). Awards through these various solicitations fund thousands of scientists, engineers, and educators each year at U.S. nonprofit and commercial organizations, as well as Federal research institutions including NASA's field Centers.

- STATEMENTS OF POLICY

NASA's Partnership with the Research and Education Communities. Funding for NASA-related research and development projects is a privilege accorded to qualified science, engineering, and educational personnel by NASA acting on behalf of the people of the United States through Congressional action. NASA's proposal and selection processes works only because the various research communities and NASA program officers together maintain the highest level of integrity at all stages of the processes. As a general rule, recipients of NASA research awards largely manage their own research projects with minimal oversight by the Agency. Throughout the entire process—starting with the identification of program objectives, the preparation and peer review of submitted proposals, the conduct of the research itself, and finally the exposition of new knowledge through publications, public outreach, and education—NASA's sees itself as a partner with the scientific, engineering, and educational communities in making its programs relevant and productive.

Inclusive Solicitation of Proposals. NASA welcomes proposals in response to its NRA's from all qualified sources, and especially encourages proposals from Historically Black Colleges and Universities (HBCU's), Other Minority Universities (OMU's), and small disadvantaged businesses (SDB's) and women-owned small businesses (WOSB's). In accordance with Federal statutes and NASA policy, no eligible applicant shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NASA on the grounds of race, color, creed, age, sex, national origin, or disability.

- NASA WORLD –WIDE WEB (WWW) HOME PAGES

Links to all material posted on the World Wide Web concerning NASA and its programs may be found through the NASA homepage at <http://www.nasa.gov/> (Note: all of the NASA postings on the Internet may be searched through the NASA search engine found at <http://www.nasa.gov/search/>).

- NOTIFICATION OF RELEASE OF NASA RESEARCH SOLICITATIONS

Links to all open and recent past OSS NASA Research Announcements (NRA's) may be accessed by opening "Research Opportunities and Data" from the menu on the NASA OSS home page at <http://spacescience.nasa.gov/>. In addition, many programs at NASA Headquarters and field Centers also maintain an Internet site listing their unique program requirements.

As an additional service to the interested research community, NASA's Enterprises each maintain electronic notification systems for their research program announcements. Directions for subscribing to these electronic services may be found by selecting the menu item "Subscribe to E-mail Announcements" from the various WWW home pages listed above and following the instructions therein. The types of Announcements for which these electronic notifications will provide alerts are:

Announcement of Opportunity (AO) – A specific research opportunity for which relatively well-defined science investigations are solicited, usually in association with a specific NASA space mission that may (but does not always) involve the provision and operation of experiment hardware and that is typically funded by a unique Federal budget appropriation;

NASA Research Announcement (NRA) – A general research opportunity that solicits relatively nonspecific research, technology, or education projects that are funded by NASA's yearly, on-going budgets;

Cooperative Agreement Notice (CAN) – A unique research programs that involve a relatively high degree of interaction between the Agency and the selected recipient(s) to achieve NASA's desired objectives (e.g., to develop a research institute, an extensive educational/public outreach activity, or a specified technology capability); and

NASA Announcement (AN) – A program in which selections of investigations are made on a competitive basis but for which no monetary award is made (e.g., to acquire new data from an operating space science mission).

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1. OVERVIEW OF THE NASA RESEARCH ANNOUNCEMENT (NRA)

1.1 General Background

In fulfillment of the National Aeronautics and Space Act of 1958, as amended, (accessible on the World Wide Web at <http://www.hq.nasa.gov/office/pao/History/amendact.html>), NASA endeavors to sponsor the highest quality research and development of the newest technologies related to the space and aeronautical sciences. Therefore, NASA solicits proposals by issuing Broad Agency Announcements of several different types for the particular targeted objectives sought by each program. This *OSS Guidebook* specifically discusses the policies and procedures of the Broad Agency Announcement known as the NASA Research Announcement (NRA) issued by the Office of Space Science in 2001.

A key feature that distinguishes research sponsored by NASA is that it must be relevant to NASA's programs, be of the highest intrinsic science and technical merits, and be affordable and realistic in cost. Therefore, proposals that respond to a specific NRA are called "solicited proposals," of which NASA receives and processes several thousand each year submitted in response to 50 or more different research solicitations. Responsible and timely handling of these proposals is crucial for the integrity and efficiency of the review and funding process. The standards set forth in this *OSS Guidebook* not only facilitate this process but also promote the highest level of professionalism by NASA for handling and reviewing of proposals. Therefore, potential proposers are urged to read this *OSS Guidebook* carefully and to adhere to the directives specific to each NRA of interest in order to submit a valid (i.e., "responsive") proposal.

In general, this *Guidebook* supplements the material given in its Appendix B, entitled "Instructions For Responding To NASA Research Announcements," which reproduces NASA Federal Acquisition Regulations (FAR) Supplement (NFS) 1852.235-72 (see Appendix A for further reference). Where appropriate in this *Guidebook* (especially in Section 2 below), cross reference to Appendix B is provided in brackets (for example, "[Appendix B, part (a)]"). In the case of any conflict, the provisions of the NFS, or as specifically noted in the NRA itself, take precedence over those in this *Guidebook*.

The funding mechanisms used by NASA for research selected through a NRA are grants, cooperative agreements, contracts, interagency agreements, and NASA's own internal processes for funding activities at its Centers and the Jet Propulsion Laboratory (JPL):

- Grants and cooperative agreements with nonprofit organizations are managed by a NASA Grant Officer following the policies set forth in the "Grant And Cooperative Agreement Handbook" (see also Appendix A for access information).

- Cooperative agreements with for-profit entities may be managed by a Contracting Officer or Grant Officer pursuant to the policies set forth in the “Grant and Cooperative Agreement Handbook.”
- Contracts with either non-profit or for-profit organizations are managed by a NASA Contracting Officer following the policies in the FAR and NFS (see Appendix A for access information) regardless of the type of organization.
- Interagency agreements for the transfer of Federal funds are arranged by NASA management following currently applicable policies and procedures.
- Research and Technology Operating Plans (RTOP’s) are used for the funding of research tasks at NASA Centers and JPL and are administered from NASA Headquarters.

For conciseness, the term “award” will be used in this *Guidebook* to mean any of these funding mechanisms, and similarly, “Award Officer” will mean a NASA Grant Officer, a NASA Contracting Officer, or an appropriate NASA HQ Program Manager. In all cases, only the Award Officer has binding authority for the Government funding allocated to a recipient. See Appendix D for more details about Awards and Continuing Support.

1.2 Overview Description of the Processes

1.2.1 Writing, Announcing, and Releasing a NRA

NASA OSS NRA’s, regardless of their objectives, will be patterned on a standard format that, at a minimum, includes:

- A short (two to three page) “Summary of Solicitation” that describes the program and summarizes pertinent information for the NRA, is signed by the responsible NASA OSS program official, and provides any additions or amendments to the standard guidance and/or formats given in this *Guidebook* for the preparation and submission of proposals; and
- An appendix, entitled “Description of Program Opportunity,” that describes in detail the objectives for which proposals are being solicited by that particular NRA.

Pursuant to Federal statute, all NRA's must be synopsisized in the Commerce Business Daily (CBD) 15 calendar days prior to its release. If an NRA expressly precludes the award of a contract as a funding instrument, posting in the CBD is discretionary but is usually done to ensure notification of the solicitation to the broadest possible audience. As a favor to the interested members of the science, technical, and educational research communities, NASA also provides direct notification of the intended release of all program announcements of any type through Internet-based or postal mail services described in the Summary of Relevant Information above in this *Guidebook*.

Announcements may also be accessed through the CBDNet Internet site at <http://cbdnet.gpo.gov/> or by accessing NASA's Acquisition Internet Service (NAIS) at <http://procurement.nasa.gov/>. Shown below is sample text for the notice for these venues.

NASA RESEARCH ANNOUNCEMENT (NRA) 05-OSS-50, "SPACE SCIENCE SATELLITE (SPASCI-SAT) RESEARCH PROGRAM"

Release Date: June 6, 2005

Proposal Due Date: September 5, 2005

The National Aeronautics and Space Administration (NASA), Office of Space Science, solicits proposals for basic research related to the science and technology objectives of the Space Science Satellite (SPASCISAT) that was launched February 29, 1999. Investigators may propose to analyze SPASCISAT data either by themselves or in conjunction with correlative space or ground-based data, or to study the science-related technologies tested by the unique hardware on this mission. The NRA provides a detailed description of science objectives and guidance for proposal preparation, and it will be available on its release date at World Wide Web URL address <http://research.hq.nasa.gov/>. Further information about this solicitation is available from Dr. program officer, Office of Space Science, Code SR, National Aeronautics and Space Administration, Washington, DC 20546-0001 (202-358-xxxx; FAX: 202-358-xxxx; E-mail: <program.officer@hq.nasa.gov>). Participation in this program is open to all categories of domestic and foreign organizations, industry, educational institutions, nonprofit organizations, NASA Centers, and other Government agencies. This notice constitutes a NASA Research Announcement as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2).

Each NRA may also be found on its date of release by opening "Research Opportunities" on the home page of its sponsoring NASA Enterprise. Generally, advance notices of future NRA's are found at the same location with a "TBD" release date. Notification of NRA's may also appear in various professional publications that serve specific science disciplines, engineering fields, or educational areas, and/or in a variety of commercial publications that report news concerning NASA's programs. However, since such notifications may not appear until several weeks after the actual release dates, those interested in NASA research opportunities are urged to subscribe to the relevant NASA's E-mail notification service(s), to check the relevant NASA home page(s), and/or to check the NAIS and CBDNet Internet sites. However, note that NASA is not responsible for inadvertently failing to provide E-mail notification of an upcoming NRA.

1.2.2 Proposal Content and Submission

Chapters 2 and 3 of this *OSS Guidebook* provides detailed information about the proposal preparation and submission processes that all OSS NRA's will use in 2001 (unless specifically amended in the signed Summary of Solicitation of the NRA itself).

However, while NASA personnel are pleased to discuss general program objectives with prospective proposers, they may not provide specific advice on budgetary or technical issues beyond those published in the NRA that would give an unfair competitive advantage, for example, specific topics of interest or budget levels, unless this same information is openly available to all interested proposers.

As a general rule, in order to be considered complete and, therefore, competitive, proposals submitted in response to a NRA should provide at least the following information:

- a detailed description of the proposed research objective(s) and its(their) significance to its field of endeavor;
- the suitability of the methods proposed for carrying out the proposed investigation;
- significance of the proposed work as it relates to the objectives specifically stated in the NRA and to NASA in general;
- the qualifications of the proposing investigator(s) and their institution(s); and
- the amount of and justification for the requested funding.

NASA must receive the required number of printed copies of the proposals at the mailing address by the proposal deadline that will be given in each NRA (also see Section 3.2 in this *Guidebook* for the policy on late proposals). In addition, some NRA's may specify that an electronic copy of the proposal also be submitted, either through the World Wide Web or by means of a specified electronic storage medium.

1.2.3 Proposal Review and Selection

To be competitive for selection, proposals must fully satisfy the evaluation criteria as judged through review by qualified peers of the proposer and by programmatic evaluation for cost and relevance by NASA (see further details in Appendix C of this *Guidebook*). NASA will begin this evaluation process as soon as possible after the deadline for proposal submission. At a minimum, the evaluation criteria against which the proposals will be judged will be those listed in Section 2 of Appendix C, although these may be supplemented by specific criteria given in the NRA itself. NASA always uses evaluations by appropriately qualified peers of the proposer who are knowledgeable though not necessarily specialists in the objective(s) solicited by the NRA. Experience has consistently shown that the characteristics of successful proposals are that they are technically meritorious, logical, complete, convincing, easily read, and responsive to and affordable by advertised NASA program.

Following peer evaluation, the cognizant NRA program officer will evaluate the competitively rated proposals against the programmatic objectives and financial limitations stated in the NRA. The program officer then presents a recommendation for selection based on the entirety of these factors to the NASA Selecting Official identified in the NRA. The Selecting Official will select for funding those proposals deemed

worthy as judged against all of the evaluation criteria, the objectives of the NRA, and the available financial resources.

Following selection, each proposer will be notified of the disposition of his/her proposal and provided with a debriefing to explain that decision. Those proposers who are selected will be advised that their institutions will be contacted by the responsible NASA Procurement Office to arrange for implementation of an appropriate award. It is important to note that until an award is made, there is no guarantee that the recommended financial resources will be available, and that awards are made to the proposing institution and not directly to the Principal Investigator. Appendix D provides ancillary information about how NASA typically implements awards for the proposals selected through its NRA's.

1.3 Unsolicited Proposals

Unsolicited proposals are submitted to NASA on the initiative of the applicant rather than in response to a NRA (see Appendix A for reference to further information). However, since funding resources are rarely available outside of NASA's formally defined programs, anyone considering submitting an unsolicited proposal is strongly advised to consult with an appropriate NASA program officer before preparing and submitting such a proposal. By statute the information a program officer may provide in discussing the development of an unsolicited proposal is limited to the general need for the type of effort contemplated for proposal and, as appropriate, to providing contacts with other Agency personnel for the limited purpose of obtaining an understanding of the Agency mission and responsibilities relative to the type of effort contemplated.

An unsolicited proposal received by NASA is first evaluated to ascertain if it is relevant to NASA's interests; if it is not relevant, it will be handled as technical correspondence and returned without review. If it is relevant, it will be assigned to the most appropriate NASA Program Office under cover of a copy of a letter informing the proposer of that assignment. For an unsolicited proposal that falls within the domain of a current NASA program or interest, the proposal will be further assessed to determine if it:

- proposes a specific, unique or innovative project with sufficient technical and cost information to permit its meaningful evaluation;
- is signed by an official authorized to commit the submitting organization to carrying out the proposed effort if it is selected;
- does not offer to perform standard services, nor has been prepared under or as a result of Government (NASA) supervision or request;
- is not appropriate for submission to a formal NASA solicitation that is either already open or planned for release in the near future through which the proposal could be competed with other similar proposals*; and
- does not request a level of funding beyond that which could be accommodated by uncommitted resources should the proposal be found to be of sufficient merit.

*Note: An unsolicited proposal identified as being within the scope of an open program announcement, or one that is soon to be released, may be evaluated as a response to that

announcement providing that this action does not place the proposal as written at a competitive disadvantage as based on the requirements for that program. If this action would result in a competitive disadvantage, the applicant will be given the opportunity to amend the proposal to ensure compliance with applicable proposal preparation instructions.

If an unsolicited proposal fails to meet any of these guidelines, NASA reserves the right to handle it as technical correspondence and return it without review. If the proposal is determined to be valid, NASA will conduct an appropriate review (at a minimum, by NASA personnel only; at a maximum, by external mail and/or panel review), after which it will be submitted to an appropriate NASA Selection Official for selection or rejection (see further details in Appendix C).

1.4 Proposal Institutions and Personnel

1.4.1 Types of Proposing Institutions

NASA accepts proposals in response to its NRA's from all types of U.S. and non-U.S. institutions acting on behalf of the proposer(s). As an aid to NASA to determine the appropriate type of award to be used should a proposal be selected, one of the following institutional categories should be indicated at the appropriate line on the proposal's Cover Page (see Section 2.3.1 below):

- Educational Institution – A university or two- and four-year college (including U.S. community colleges) accredited to confer degrees beyond that of the K-12 grade levels (all such institutions are considered nonprofit).
- Nonprofit, Nonacademic Organization – A private or Government supported research laboratory, university consortium, museum, observatory, professional society, educational organization, or similar institution that directly supports advanced research activities but whose principal charter is not for the training of students.
- Commercial Organization – An organization of any size that operates for profit or fee, and that has appropriate capabilities and interests to conduct the proposed effort.
- NASA Center – Any NASA field Center, and the Jet Propulsion Laboratory.
- Other Federal Agency – Any non-NASA, U.S. Federal Executive agency or Federally Funded Research and Development Center (FFRDC) sponsored by a Federal agency.
- Unaffiliated Individual – Any person residing in the U.S., whether a U.S. citizen or resident alien, who has the capabilities and access to facilities for carrying out the proposed project and who, if selected, agrees to fiscal arrangements that NASA determines as sufficient to ensure responsible management of appropriated Federal funds.
- Non U.S. Organizations – Institutions outside the U.S. that propose on the basis of a policy of no-exchange-of-funds; consult Section (I), Appendix B, for specific details (Note: some NRA's may be issued jointly with a non U.S. institution, e.g., those concerning guest observing programs for jointly sponsored programs, that will contain additional special guidelines for non U.S. participants). Also see Section 2.3.10, subparts (vii) and (viii) in this *Guidebook* for special instructions for budgets of proposals from non-U.S. organizations that involve U.S. personnel for whom NASA support is requested.

1.4.2 Proposal Personnel

Every proposal submitted to a NRA must identify every person and their institution of employment who is expected to play a significant role in the execution of the proposed effort if it is selected by NASA (see Section 2.3.3) using one of the following six categories of personnel (Note: other than the Principal Investigator, some NRA's may specifically disallow some of these categories):

Principal Investigator (PI) – Every proposal must identify a single PI who is solely responsible for the quality and direction of the proposed research and for the proper use of awarded funds regardless of whether or not he/she receives support through the award. The proposing institution has the authority both for designating the PI and for replacing him/her for cause, although any change in the PI for any reason requires NASA approval. NASA does not accept the designation of anyone as a "Co-Principal Investigator." The only exception to this requirement may arise when a proposal includes participation from a non-U.S. organization and is discussed below under Co-Investigators.

NASA strongly encourages Principal Investigators to specify only the most critically important personnel to aid in the execution of their proposals. Such other personnel identified in a proposal are to be designated in one of the following categories:

Co-Investigator (Co-I) – A Co-I is a member of the proposal's investigation team who may hold a full-time or limited-term appointment, and who is critical for the conduct of the investigation by contributing unique expertise and/or capabilities needed for its successful completion. A Co-I must have a well-defined role in the proposed investigation, serves under the direction of the PI, and may or may not receive funding through the award. Only an individual who has formally agreed to the role may participate as a Co-I even if his/her participation is at no cost to the proposal. Each Co-I must demonstrate his/her commitment to participate in the proposed investigation by way of a brief, signed statement from him/her even if they are from the same institution as the PI (see Section 2.3.9).

There are three subcategories of Co-I's that a proposal may additionally use in its Scientific/Technical/Management section (see Section 2.3.4) as appropriate for the following unique circumstances:

- A Co-I may be additionally designated as the "Science PI" for those cases where the proposing institution does not permit that individual to formally serve as the PI as defined above (e.g., non tenured faculty or postdoctoral personnel). In such a case, the Science PI will be understood by NASA to be in charge of the scientific direction of the proposed work, although the formally designated PI is still held responsible for the overall direction of the effort and use of funds.
- A Co-I at an institution other than that of the PI who is making a major contribution to the proposal and who serves as the point of contact at that Co-I institution, may be additionally designated as the "Institutional PI" for that Co-I's

institution. Note: If specifically stated in the NRA, NASA may elect to provide an award directly to that Co-I institution with the Institutional PI serving as the “PI” at his/her institution.

- A Co-I from a non-U.S. institution may be additionally designated as a “Co-Principal Investigator” (Co-PI) should such a designation fulfill administrative requirements of that Co-I’s institution and/or for the procurement of funding by that Co-I from his/her sponsoring funding authority (see also Appendix B, Section (I)).

Postdoctoral Associate – A Postdoctoral Associate holds a Ph.D. or equivalent degree, is usually employed full-time at the proposing institution, is identified as a major participant (but not explicitly a Co-I) for the execution of the proposed research, and is appropriately remunerated for that effort through the proposal budget. Such a Postdoctoral Associate should be identified by name if known by the time the proposal is submitted, or may be identified only by designated function in those cases where recruitment depends on the successful selection of the proposal.

Other Professional – This category is appropriate for personnel who support a proposal in a critical manner, e.g., a consulting staff scientist or a key Project Engineer and/or Manager, but who is not identified as a Co-I or Postdoctoral Associate.

Graduate Student – A proposal may incorporate a student working for a postgraduate degree who will be paid through the proposal’s budget to support the proposed research under direction of the PI or one of the designated Co-I’s. Such a student may be identified by name if known when the proposal is submitted or only by designated function in those cases where his/her recruitment depends on the successful selection of the proposal.

Consultant – A Consultant is an individual who is critical to the completion of the proposal and who is to be paid a fee for their services, which may include travel in order to consult with the PI at his/her home institution. Note that NASA’s *Budget Summary* form that must be submitted as part of every proposal specifically requires the identification and justification of all Consultants (see Section 4 of Appendix E).

Collaborator – A Collaborator is an individual who is less critical to the proposal than a Co-I but who is committed to provide a focused but unfunded contribution to a specific task (Note: if funding is requested in the proposal, such a person must be identified in one of the other categories above).

1.5 Proposals Submitted to Successor NRA’s [Appendix B, Paragraph (d)]

Holders of existing research awards frequently propose to successor NRA’s issued for the same program objectives in order to extend an on-going research activity to its next logical step. However, in order to ensure equitable treatment of all submitted proposals, NASA does not extend any special consideration to such proposals in terms of

preferential handling, review, or priority for selection. Therefore, NASA chooses not to use the name "renewal proposal." Instead, all proposals in response to a NRA are considered new regardless of their previous history of NASA funding and will be reviewed on an equal basis with all other proposals submitted to the NRA.

Nevertheless, such successor proposals are welcome and encouraged, and are expected to indicate the relevant achievements made during the course of the previous award(s) in its *Scientific/Technical/Management Section* (see Section 2.3.4). In addition, the standard form for the proposal *Cover Page* (see Section 2.3.1) provides a space for entering the NASA grant or contract number of any existing award that is a logical predecessor to the successor proposal that is being submitted. If the successor proposal is selected, it is NASA's preference to fund it through a new award; however, NASA reserves the right to fund the proposal by issuing an amendment to the existing award. In either case, the starting date of the successor award will follow the expiration date of the preceding award

1.6 Proposals Involving Personnel from Non-U.S. Institutions

NASA welcomes proposals from U.S. institutions that include participants employed by non-U.S. institutions that are compliant with the policy stated in Section (I) of Appendix B and with the language below concerning Export Control. It is critical for the sponsoring non-U.S. institution or agency to certify that support for their designated personnel will be forthcoming should the proposal be selected by NASA for support. Such personnel may fill any of the roles defined in Section 1.4.2. Further details concerning budgets of such proposals are given in Section 2.3.10, subparts (vii) and (viii) of this Guidebook.

Export Control Guidelines Applicable to Foreign Proposals and Proposals (Including Foreign Participation)

Foreign proposals and proposals including foreign participation must include a section discussing compliance with U.S. export laws and regulations, e.g., 22 CFR Parts 120-130 and 15 CFR Parts 730-774, as applicable to the circumstances surrounding the particular foreign participation. The discussion must describe in detail the proposed foreign participation and is to include, but not be limited to, whether or not the foreign participation may require the prospective proposer to obtain the prior approval of the Department of State or the Department of Commerce via a technical assistance agreement or an export license, or whether a license exemption/exception may apply. If prior approvals via licenses are necessary, discuss whether the license has been applied for or if not, the projected timing of the application and any implications for the schedule. Information regarding U.S. export regulations is available at <http://www.pmdtc.org> and <http://www.bxa.doc.gov>. Proposers are advised that under U.S. law and regulations, spacecraft and their specifically designed, modified, or configured systems, components, and parts are generally considered "Defense Articles" on the United States Munitions List and subject to the provisions of the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120-130.

1.7 Helpful Guidelines for Proposal Preparation

Extensive experience in the review of proposals submitted in response to a wide variety of program announcements has shown that the following guidelines are valuable in helping to ensure the submission of a valid, competitive proposal to NASA:

- Follow the instructions in this *Guidebook* and the specific NRA of interest with care in order to respond to the opportunity as published, since NASA is legally obligated to review and select proposals in accordance with their published provisions.
- Clearly state the objectives of the proposal and its implementation plan so that both NASA and the peer reviewers can easily understand what is proposed to be done and how it will be accomplished.
- NASA is a program-oriented Agency and is obligated to sponsor only research that supports its goals and objectives as stated in its strategic plans. Therefore, the proposal should clearly address the advertised objectives as stated in the NRA.
- If proposing innovative work in a new or emerging field strive to strike a judicious balance between the provision of tutorial material and the description of the new activities being proposed.
- Provide appropriate recognition of preceding accomplishments and demonstrate command of the literature by citing key recent, significant publications in the field, and show how the proposed activity will extend and build on what has already been done (whether by the proposer or by others).
- Proof read the proposal carefully before submission, and, if at all possible, ask a colleague to critically review it for completeness and comprehensibility; strive for a quality and clarity of text comparable to a submission to a peer-reviewed journal.
- Keep the proposal text as short as possible consistent with completeness and understandability, and use legible printer fonts and illustrations, and a clear and simple organization of the text.
- Propose fresh, new ideas rather than slight modifications of proposals that have been rejected in previous competitions (Note: simply revising a proposal to meet deficiencies identified in a previous review does not necessarily guarantee a higher rating, since reviewers are almost never the same, NASA priorities evolve, and fields of endeavor mature, even over a period as short as a year).
- Include all requested proposal information in its specified order and in compliance with stated page limits.
- Strive for realism as well as adequacy of the requested budget, and provide all the details necessary to justify and understand the proposed costs (Note: a relatively inexpensive proposal does not have a competitive advantage; likewise, a proposal of especially high merit is not necessarily rejected only because it requests a budget beyond the norm advertised for the program).

2. PROPOSAL PREPARATION AND ORGANIZATION

2.1 Overview

It is expected that this Guidebook will be updated as required. Therefore, each NRA will explicitly identify the edition date of this Guidebook that should be followed to ensure the submission of a valid proposal, and this material will not be repeated in the individual NRA's. Any deviations from the Guidebook will be clearly identified in the NRA but will only be introduced if critically needed for the unique needs of the program being solicited.

Although examples of the required prefatory pages and budget forms needed for most NRA proposals are collected in Appendix E, all NRA's now specify an address on the World Wide Web for the direct electronic submission of a combined *Cover Page/Proposal Summary* and *Budget Summary*. Printed copies of these completed electronic forms are then submitted with the hard copies of the proposal to NASA (see further details below). Finally, some NRA's may require additional prefatory information that augments that listed for the standard Cover Page/Proposal Summary (see Appendix E); in such cases, this information will be clearly indicated on the Web form.

It is NASA policy that proposals should not contain security classified material (see Appendix B, Part (c) (9)). However, should the project proposed require access to classified information, or should the result of the project generate such material, the proposer shall comply with all Government security regulations.

2.2 Standard Proposal Formats

Unless otherwise specified in the NRA of interest, the standard, default formats for a proposal submitted in response to all NRA's are:

- Typewritten English-language text using an easily read font (at least 12-point having no more than 15 characters per inch); on white 8.5x11 inch paper (or A4 stock for non-U.S. proposals) with at least 1 inch (2.5 cm) margins on all sides;
- Bound only with metal staples (to facilitate recycling; i.e., no loose leaf binders or cardboard, plastic, or permanent covers);
- An easily disassembled, one-sided original copy (to enable NASA to make additional copies if needed);
- Double-sided printing for proposal copies (preferred but not required);
- Use of fold out pages, colored illustrations, and/or photographs only as needed for the display of unique and critically important proposal data (Note: if such formats are used, all copies of proposals must also include the same materials);
- No proposal material submitted solely on any type of electronic media, nor reference to sites on the World Wide Web for information or material needed to either complete or review the proposal (i.e., the printed copy of the proposal must be complete in itself);
- Use of only metric and standard discipline-unique units; and

- Adherence to the fixed page limits given in this Guidebook for all sections of the proposal (see Section 2.3 below), unless otherwise specified in the NRA.

2.3 Proposal Contents

Unless otherwise specified, a proposal in response to a NRA should be assembled with the following items in the order listed and using the titles as given. Proposals that omit required materials may be returned without review, although in some cases a NRA may specify exceptions, especially to the length of the *Scientific/Technical/Management Section*. This list is followed by a discussion of each individual subsection of a proposal that is also cross-referenced to the corresponding subpart in the standard NASA guidance for proposal contained in Appendix B of this Guidebook.

CONSTITUENT PARTS OF A PROPOSAL (in order of assembly)	PAGE LIMITS
• <i>Cover Page/Proposal Summary</i>	As printed from Web
• <i>Table Of Contents</i>	1
• <i>Summary Of Personnel and Work Efforts</i>	1
• <i>Scientific/Technical/Management Section</i>	15*
• <i>References</i>	As required
• <i>Facilities and Equipment</i> (as needed and appropriate)	2
• <i>Curriculum Vitae:</i> for the PI:	3
for each Co-I:	1
• <i>Current and Pending Support</i>	As required
• <i>Co-I and/or Collaborator Letter(s) of Commitment</i>	As required
• <i>Budget Summary</i> (use NASA Web format)	As required
• <i>Budget Details</i> (including Proposing Institution Budget)	As required
• <i>Special Notifications and/or Certifications</i>	As required
• <i>Reprint(s)/Preprint(s)</i> (optional)	Not applicable

* including illustrations, tables, and figures (unless otherwise specified in NRA), and where each side of a sheet containing text or illustration counts as a page and each "n-page" fold-out counts as n-pages.

2.3.1 *Cover Page/Proposal Summary* [Appendix B, Part (c)(1) & (c)(3)]

All proposals must be prefaced by the integrated *Cover Page/Proposal Summary* that is produced by electronically entering the requested information through the World Wide Web site designated in the NRA. (Note: a telephone and/or E-mail point of contact is always provided in the NRA for any proposer who experiences difficulty in using the specified Web site or who cannot access the Web). This item is then submitted electronically and also printed in hard copy for authorizing original signatures of the PI and the Institutional Official. This signed copy must be submitted with the original copy

of the proposal . In addition, reproductions of the signed *Cover Page/Proposal Summary* are used to preface the required printed copies of the proposal.

At a minimum the following information will be requested to complete the *Cover Page* although additional programmatic information may also be requested on the form as specified in the NRA:

- The alpha-numeric identifier and name of the NRA (Note: these items will already be included on the electronic form through selection from a menu on the Web site).
- The full legal name and address of the proposing organization, including the specific division or campus identification if part of a larger organization.
- The designation of the type of proposing institution (using the definitions in Section 1.4.1).
- Full institutional physical mailing address, telephone and facsimile numbers, and E-mail address for the following individuals/offices:
 - (i) The Principal Investigator (Note: the hard copy print-out of the electronic form will also provide a space for an original signature and date).
 - (ii) All Co-Investigator(s) who are identified by function in the proposal (see Section 1.4.2 and their organizational affiliation(s).
 - (iii) Office of Sponsored Programs at the proposing institution.
 - (iv) Name and Title of the Authorizing Institutional Official (Note: the hard copy print-out of the electronic form will provide a space for an original signature and date).
- An abbreviated title (limit of 50 characters) of the proposed investigation.
- The full title of the proposed investigation (may be any length or the same as the abbreviated title) that is intelligible to a scientifically literate reader and suitable for use in the public press).
- The Award Number of any existing NASA award for which the newly proposed work is submitted as a successor activity (see Section 1.5).
- The proposed costs both by 12-month periods and for the total proposed period of performance.
- The date of proposal submission, desired starting date of the period of performance (at least 200 days after the proposal due date unless otherwise specified in the NRA), and total duration of the project (in years).

A block of space, limited to 2500 characters including spaces (about half a page using the default formats for text) is provided in the Web site for a self-contained *Proposal Summary* that is to include the following key information:

- A description of the key, central objectives of the proposal in terms understandable to a nonspecialist;
- A concise statement of the methods/techniques proposed to accomplish the stated research objectives; and
- A statement of the perceived significance of the proposed work to the objectives of the NRA and to NASA interests and programs in general.

Special conditions and instructions concerning the *Cover Page/Proposal Summary*:

- The authorizing institutional signature also serves to verify that the proposing institution has read and is in compliance all Federally required Certifications (Note: for reference only all currently required Certifications are printed in full in Appendix E; however, note that the NRA may specify other unique certifications that must be submitted).
- Electronic submission of only a *Cover Page/Proposal Summary* does not satisfy the deadline for proposal submission; the required number of copies of the proposal, one with original signatures, must be received at the indicated address by close of business (5 PM Eastern Time) on the proposal due date (Note: see Section (g) of Appendix B as well as Section 3.2, both in this *Guidebook*, for NASA policy on late proposals).
- NASA intends to publish the proposal's full title, the PI's name and institution, and the Proposal Summary of every selected investigation in a publicly accessible data base; therefore, the *Proposal Summary* should not include proprietary information that would preclude its unrestricted release (see also Appendix B, (a)(2) and (c)(2)).
- Physical changes (such as whiteout or strikethrough) to the printed *Cover Page/Proposal Summary* that is submitted with the proposal are not permitted. Any needed changes may only be made by editing the electronic submission using the instructions of the Web page, after which the revised *Cover Page/Proposal Summary* is then printed for purposes of securing the necessary signatures (Note: for this reason, it is strongly recommended that this item be produced from the specified Web site well in advance of the proposal due date).

2.3.2 *Table of Contents*

The one-page *Table of Contents* should provide a guide to the organization and contents of the proposal. This item may also incorporate customized formats and material of the proposer's own choosing, e.g., identification of the submitting institution through use of letterhead stationary, logos, etc.

2.3.3 *Summary of Personnel and Work Efforts*

The item must provide a summary list, in simple tabular form, of the names and intended work commitments of the PI and of every Co-I in the proposed investigation for whom salary support is requested in units of intended time commitment (rounded to the nearest 0.01 of a nominal Work Year of 1880 hr.) and for each year of the proposed period of performance.

2.3.4 *Scientific/Technical/Management Section*

[Appendix B, Parts (c)(4), (c)(5), and in-part (c)(6)]

This section is the main body of the proposal and must cover the following topics in the order given, all within the specified page limit (the default limit is 15 pages unless otherwise specified):

- The objectives and expected significance of the proposed research, especially as related to the objectives given in the NRA;
- The technical approach and methodology to be employed in conducting the proposed research. Include a description of any hardware proposed to be built in order to carry out the research, as well as any special facilities of the proposing institution(s) and/or capabilities of the proposer(s) that would be used for carrying out the work. Notes: (i) see also the Facilities and Equipment section below for the description of critical equipment needed for carrying out the proposed research; (ii) see Section 2.3.10 (iv) for further discussion of costing details needed for proposals that may propose significant hardware, software, and/or ground systems development, and, as may be specifically allowed by a specific NRA, proposals for flight spacecraft and instruments);
- The perceived impact of the proposed work to the state of knowledge in the field and, if the proposal is offered as a direct successor to an existing NASA award, how the proposed work is expected to build on and otherwise extend previous accomplishments;
- The relevance of the proposed work to past, present, and/or future NASA programs and interests or to the specific objectives given in the NRA;
- A general plan of work, including anticipated key milestones for accomplishments, the management structure for the proposal personnel, any substantial collaboration(s) and/or use of consultant(s) that is(are) proposed to complete the investigation; and a description of the expected contribution to the proposed effort by the PI and each person as identified in one of the additional categories in Section 1.4.2, regardless of whether or not they derive support from the proposed budget.

The *Scientific/Technical/Management Section* may contain illustrations that amplify and demonstrate key points of the proposal (including milestone schedules, as appropriate). Illustrations and figures must be of an easily-viewed size, and have self-contained captions that do not contain critical information not provided elsewhere in the proposal. Conversely, the inclusion of proprietary or confidential information in a proposal should be avoided if possible since in an extreme case it could hinder if not preclude the ability of NASA to properly evaluate the material. However, if such material must be submitted, adherence to the policy in Appendix B, Part (c)(9) is required.

2.3.5 *References*

All citations given in the *Scientific/Technical/Management Section* must be included in a list of references using easily understood or standard abbreviations for journals. It is

preferred but not required that these references include the full title of the cited paper or book.

2.3.6 *Facilities and Equipment*

[Appendix B, Part (c)(7)]

As appropriate for the proposed scope of work, this section should describe any major facilities (including any U.S. Government-owned facilities) and/or major test or experiment equipment that is critical for carrying out the proposed project, whether it is already available or would need to be purchased. Before requesting a major item of capital equipment, the proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative. The proposal should state if such arrangements cannot be made. The need for items that typically can be used for research and non-research purposes should be explained. Proposed costs for purchased facilities, tooling or equipment must be entered in the proposal Budget Summary and described in the Budget Details.

2.3.7 *Curriculum Vitae*

[Appendix B: Part (c)(6)]

The Principal Investigator must include a curriculum vitae (not to exceed three pages) that includes his/her professional experiences and positions, and a bibliography of recent publications, especially those relevant to the proposed investigation. A one-page vitae for each Co-Investigator must also be included (Note: any Co-I serving in one of the three special Co-I categories defined in Section 1.4.2 may use the same three page limit as for the PI).

2.3.8 *Current and Pending Support*

[Appendix B, Part (c)(10)]

Information must be provided for all ongoing and pending projects and proposals that involve the proposing PI and any Co-I's who are proposed to perform a significant share of the proposed work or to receive any financial support through the proposal. For each such individual, and for each of the following two categories of awards that may exist at the time of the proposal submission deadline, namely,

A. Current Awards (for any of the period that overlaps with the submitted proposal), and

B. Pending Awards (including the proposal being submitted to NASA),

the following information must be provided:

- Title of award or project title;
- Program name (if appropriate) and sponsoring agency or institution, including a point of contact with his/her telephone number and E-mail address;
- Performance and budget; and
- Commitment by PI (or Co-I) in terms of a fraction of a full time Work Year.

For pending research proposals, the proposing PI must notify the NASA program officer identified for the NRA immediately of any successful proposals that are awarded anytime after the proposal Due Date and until the time that NASA's selections are announced.

2.3.9 *Statement(s) of Commitment from Proposal Personnel*

Every Co-Investigator and Collaborator (see definitions in Section 1.4.2) identified as a participant in the proposal's Scientific/Technical/Management Section must submit a brief, signed letter of commitment that acknowledges his/her participation. In the case of more than one Co-I or Collaborator, a single letter signed by all participants may be submitted. In any case, each letter must be addressed to the PI, may be a facsimile or E-mail (the latter must have sufficient information to identify the sender), and is required even if the Co-I or Collaborator is from the PI's institution. An example of a letter follows:

"I(we) acknowledge that I(we) am(are) identified by name as Co-Investigator(s) [or Collaborator(s)] to the investigation, entitled <name of proposal>, that is submitted by <name of Principal Investigator> to the NASA Research Announcement <alpha-numeric identifier>, and that I(we) intend to carry out all responsibilities identified for me(us) in this proposal. I(we) understand that the extent and justification of my(our) participation as stated in this proposal will be considered during peer review in determining in part the merits of this proposal."

2.3.10 *Budget Summary and Details* [Reference: Appendix B, Part (c)(8)]

Proposals must contain a *Budget Summary* (basic content and Instructions are given in Appendix E.4) for each year of the proposed effort starting at least 200 days after proposal submittal date (unless otherwise specified in the NRA), and filled out in accordance with the Instructions that follows it. The Web site containing the *Cover Page/Proposal Summary* contains this *Budget Summary* form, which should be downloaded, filled in, and then printed in hard-copy for submission with the hard copies of the proposal as indicated in Section 2.3 above. Note that a *Budget Summary* form must be submitted for each year of the proposed task as well as for the entire period of performance; therefore, an effort with a three-year period of performance will have four such forms. The proposer should be aware of the following important considerations:

- (i) Purchase of Personal Computers and/or Software. Note the discussion of item "2.c. Equipment" on the Budget Summary Instructions (see Appendix E.4) regarding the proposed purchase of personal computers and/or commercial software. Such items are usually considered by NASA to be general purpose equipment that must be purchased from general institutional overhead budgets and not directly from the proposal budget unless it can be demonstrated that such items are to be used uniquely and only for the proposed research. If a proposal is selected for award, failure to adequately address the provisions of the instructions for item 2.c will require that NASA contact the proposing institution for the

required information, and such activity may delay the award until the purchase is justified as a direct charge for general purpose equipment or is budgeted as an indirect expense.

(ii) Joint Proposals Involving a Mix of U.S. Government and Non Government Institutions.

(a) If a PI from any type of institution proposes to team with a Co-I from a U.S. Government institution (including NASA Centers and the Jet Propulsion Laboratory), then the institutional budget for that Government Co-I should be included in the proposal's Budget Details, and the cost for that Government Co-I should be listed on line 4, "Other Applicable Costs," of the *Budget Summary* form. If the proposal is selected, NASA will execute an inter- or intra-Agency transfer of funds, as appropriate, to cover the cost of the Government Co-I.

(b) If a PI from a U.S. Government institution (including NASA Centers and the Jet Propulsion Laboratory) proposes to team with a Co-I from a non-Government institution, the proposing Government institution must cover the Co-I costs through a subcontract for which that Government PI institution is responsible. Therefore, such non-Government Co-I costs must be entered on line 2.a, "Subcontracts," on the *Budget Summary* form.

(iii) Responsibility of the Proposing Institution to Place Subawards for Co-I's at Other Institutions. Unless specifically noted otherwise in the NRA, the proposing PI institution must subcontract the funding of all proposed Co-I's who reside at other non-Government institutions.

(iv) Requirement to Submit Budget Details. In addition to the required *Budget Summary* form that is filled out in accordance with the Instructions for Budget Summary and submitted in hard copy, and the proposing institution must append at the end of the proposal sufficient details in narrative form to provide a full understanding of the proposed budget. The proposing institution may also append the proposed budget in the format of its choice. Neither the budget details nor an institutional budget have page limits.

An important requirement for Budget Details applies to proposals that, as may be allowed by the NRA interest, include significant hardware, software, and/or ground systems development, and/or flight spacecraft and instruments (e.g., for suborbital rocket or balloon payloads, or experiments for flight on the Shuttle or Space Station). In such cases the Budget Details must provide sufficient technical parameters (e.g., mass properties, power requirements, data rates, etc.) to allow NASA to perform independent cost model verification of the proposed costs.

(v) Full-Cost Accounting at NASA Centers. NASA is expected to be operating on the basis of full cost accounting as soon as possible, including all Civil Service

salaries with overhead. In the interim period, proposals involving NASA employees as either a PI or as a Co-I should use the accounting method authorized at their institutions at the time proposals are due and for the entire proposed period of performance.

(vi) Unallowable Costs. The Office of Management and Budget (OMB) Circulars A-21 and A-122, and the Federal Acquisition Regulation (FAR) at 48 CFR part 31, identify certain costs that may not be included in a proposed budget. The use of appropriated funds for such purposes are unallowable, and may lead to cancellation of the award and possible criminal charges. Grant recipients should be aware of cost principles applicable to their institution as set forth in the above regulations.

(vii) Prohibition of the Use of NASA Funds for Non U.S. Research. NASA's policy welcomes the opportunity to conduct research with non-U.S. institutions on a cooperative no-exchange-of-funds basis. Although Co-I's or collaborators employed by non-U.S. institutions may be identified as part of a proposal submitted by a U.S. institution, NASA funding is not normally available for research efforts by non-U.S. institutions at any level. However, the direct purchase of supplies and/or services that do not constitute research from non-U.S. sources by U.S. award recipients is permitted. See also Section (I) of Appendix B.

(viii) Proposals from non-U.S. PI institutions that propose the funding of U.S. Co-I's. A proposal submitted by a non-U.S. institution that involves U.S. Co-I's for whom NASA funding is requested must provide the budgets for those U.S. Co-I's in compliance with all applicable provisions in this Section 2.3.10. In addition, compliance is required by the proposing non-U.S. institution with the provisions of Section (I) of Appendix B.

2.3.11 *Special Notifications and/or Certifications* [Appendix B, Part (c) (11)]

A given NRA may require proposals to include special notifications or certifications regarding the impact of research including, for example, environmental, human, or animal care provisions; conflicts of interest; or other topics as may be required by statute, Executive Order, or Government policies. Compliance with any such requirements is important to ensure submission of a complete proposal.

2.3.12 *Reprint/Preprints*

Reprints from and/or preprints for peer-reviewed publication that are considered critical to the background of a proposal may be appended. However, while there is no limit on the number of such items that may be appended, proposers should note that NASA's reviewers are instructed that they are not under any obligation to read them and that they should base their judgment of the proposal's merits on only the proposal's contents and not on the perceived quality or quantity of any appended items. Therefore, proposers are

encouraged to include only a minimum number of such items, which is also helps to minimize the costs to the Government for sending proposals to reviewers.

3. PROPOSAL SUBMISSION PROCEDURES

3.1 Notice of Intent (NOI) to Propose

To plan for and expedite the review process, and thus minimize the time required for announcement of selections, all NRA's will specify that a Notice of Intent (NOI) to propose be submitted by a given date. Although the information in a NOI is not binding on the submitter, it should be as accurate and complete as possible by its due date. An NOI will include at least the following information, although the additional special requests may also be indicated:

- Reference to the NRA by its alpha-numeric identifier (e.g., NRA 99-OSS-50);
- The name, postal and E-mail addresses, and telephone number of the Principal Investigator and, as are known by the date of submission, all Co-Investigator(s);
- A brief, descriptive title of the anticipated proposal; and
- A brief description of the primary research area(s) and objective(s) of the anticipated investigation.

This NOI is submitted through an interactive site on the World Wide Web site that will be specified in the NRA. Although it is most helpful to NASA if the NOI is submitted by the specified target date, it is better to submit late than not at all since the receipt of unanticipated proposals can significantly delay and complicate the review process. Contact the NASA program officer identified in the NRA for guidance on how to submit a late NOI.

3.2 Deadline for Submission and Late Proposals

Each NRA will prominently list the deadline for proposal submission in the Summary of Solicitation. The required number of copies of the proposal (default is 15 copies unless otherwise specified in the NRA), plus the signed original, must be received by the close of business (5 PM Eastern Time) on the proposal Due Date as specified in the NRA's Summary of Solicitation. Note that post mark or other evidence of submission for delivery in advance of or on the due date does not compensate for the late delivery of a proposal at this designated address. Delivery by any method to any other address may result in the proposal being declared late. NASA does not accept proposals sent by collect postage, nor is NASA responsible for late delivery by commercial services.

Proposers should be aware that NASA personnel are not empowered to grant "permission" to submit a late proposal. The decision to submit a late proposal is solely that of the proposer. Late proposals may be considered for review and possible selection only if they appear to offer a distinct benefit to NASA (see Appendix B, Part (g)). In this regard it is important to note that since almost every NRA receives many more high quality proposals than can be supported with the available funds, a determination of distinct benefit of a late proposal is likely to be rare.

3.3 Submission of Proposals

In order to prepare an original proposal (see Section 2.3) and the requisite number of copies, it is necessary to electronically complete and submit, and then print, the *Cover Page/Proposal Summary* form (see Section 2.3) found on the World Wide Web site specified in the NRA. A second *Budget Summary* form (see Section 2.3.10) is also found on the same Web site for downloading, but it is submitted only in hard copy (one such form for each year of the proposed effort and one for the entire proposed period of performance). The Summary of Solicitation of each NRA will prominently list a help line telephone number and/or electronic address for applicants who may have difficulty with accessing or submitting these items and the address for the delivery of proposals including a telephone number point of contact for commercial delivery.

A post card or E-mail message indicating that a proposal has been received will be sent within two weeks of the proposal deadline. Any submitters not receiving such notification in that time frame should immediately contact the program officer identified in the NRA.

Note: The submission address specified in a NRA may be at one of the NASA Centers, a commercial proposal support contractor, or a non-profit institution (whether funded primarily by NASA or otherwise). All receiving organizations are bound by the conditions of their employment policies, service contracts, or agreements with NASA to maintain strict confidentiality of the materials they handle. Furthermore, they are bound to ensure that their employees who handle proposals, or who in any way have access to information about or within proposals, do not have conflicts of interest with any of the proposers and are not in any way involved in proposing to the NRA themselves (see also Appendix C for a further discussion of conflict of interest issues).

3.4 Timeline for Review and Selection

NASA currently is committed to meeting a standard of no more than 150 days from the due date for proposals to the announcement of selections, and another 46 days after that announcement for the implementation of the award itself. Therefore, a request for funding sooner than about 200 days from the of proposal due date is unlikely to be accommodated. A proposal submitted in response to a NRA that is time-sensitive (e.g., to take advantage of a unique natural phenomena or programmatic event) may be returned if, in the opinion of the cognizant program officer, there is insufficient time for its review and processing. Alternatively, time sensitive proposals may be submitted as unsolicited proposals when the NRA selection cycle does not accommodate a time-sensitive proposal (see Section 1.3 of this *Guidebook*)

3.5 Proposal Withdrawal or Return

[Appendix B, Part (h)]

A proposal may be withdrawn by a written request signed by the proposing institution at any time for any reason, including the circumstance in which another organization has agreed to fund the proposal .

Conversely, NASA reserves the right to return a proposal without review should the proposal:

- Be clearly nonresponsive to the objectives of the NRA;
- Not meet the requirements for proposal format and organization specified in this Guidebook and the NRA itself;
- Fail to be submitted to the specified address by the proposal Due Date; and/or
- Be submitted with insufficient lead time to carry out the proposed effort.

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APPENDIX A

GUIDE TO KEY DOCUMENTS ON THE WORLD WIDE WEB

- The following NASA Federal Acquisition Regulations (FAR) Supplement (NFS) documents may be found through the index found at the World Wide Web (WWW) URL <http://www.hq.nasa.gov/office/procurement/regs/nfstocB.doc> :

"Unsolicited proposals"	NFS 1815.6
"NASA Research Announcements"	NFS 1835.016-71
"Broad Agency Announcements"	NFS 1835.016
"Instructions for Responding to NASA Research Announcements"	NFS 1852.235-72

- The following items may be found through active links from the NASA homepage at <http://www.hq.nasa.gov>:

- The NASA Strategic Plan
- Links to all NASA Headquarters Program Offices
- Links to all NASA Field Centers and the Jet Propulsion Laboratory
- The master list of all current Broad Agency Announcements
- The "Tasks Books" for each HQ program Office that lists all currently supported research awards (the PI name, PI institution, title and summary of the investigation)

- The following document may be found at <http://ec.msfc.nasa.gov/msfc/nasahdbk.html>:

"Guidance for the Preparation and Submission of Unsolicited Proposals"

- The following document may be found at <http://procure.msfc.nasa.gov/grcover.htm>:

"Grant And Cooperative Agreement Handbook, NPG 5800.1"

- The following items may be found at <http://whitehouse.gov/OMB/grants/index.html>:

"Cost Principles for Educational Institutions"	OMB Circular A-21
"Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations"	OMB Circular A-110
"Cost Principles for Non-Profit Organizations"	OMB Circular A-122
"Audits of States, Local Government And Non-Profit Organizations"	OMB Circular A-133

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APPENDIX B

INSTRUCTIONS FOR RESPONDING TO NASA RESEARCH ANNOUNCEMENTS

(JANUARY 2000)

NASA Federal Acquisition Regulations (FAR) Supplement (NFS)

Part 1852.235-72

(accessible through URL: <http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>)

(a) **General.**

(1) Proposals received in response to a NASA Research Announcement (NRA) will be used only for evaluation purposes. NASA does not allow a proposal, the contents of which are not available without restriction from another source, or any unique ideas submitted in response to an NRA to be used as the basis of a solicitation or in negotiation with other organizations, nor is a pre-award synopsis published for individual proposals.

(2) A solicited proposal that results in a NASA award becomes part of the record of that transaction and may be available to the public on specific request; however, information or material that NASA and the awardee mutually agree to be of a privileged nature will be held in confidence to the extent permitted by law, including the Freedom of Information Act.

(3) NRA's contain programmatic information and certain requirements which apply only to proposals prepared in response to that particular announcement. These instructions contain the general proposal preparation information which applies to responses to all NRA's.

(4) A contract, grant, cooperative agreement, or other agreement may be used to accomplish an effort funded in response to an NRA. NASA will determine the appropriate instrument. Contracts resulting from NRA's are subject to the Federal Acquisition Regulation and the NASA FAR Supplement. Any resultant grants or cooperative agreements will be awarded and administered in accordance with the NASA Grant and Cooperative Agreement Handbook (NPG 5800.1).

(5) NASA does not have mandatory forms or formats for responses to NRA's; however, it is requested that proposals conform to the guidelines in these instructions. NASA may accept proposals without discussion; hence, proposals should initially be as complete as possible and be submitted on the proposers' most favorable terms.

(6) To be considered for award, a submission must, at a minimum, present a specific project within the areas delineated by the NRA; contain sufficient technical and cost information to permit a meaningful evaluation; be signed by an official authorized to legally bind the submitting organization; not merely offer to perform standard services or to just provide computer facilities or services; and not significantly duplicate a more specific current or pending NASA solicitation.

(b) **NRA-Specific Items.** Several proposal submission items appear in the NRA itself: the unique NRA identifier; when to submit proposals; where to send proposals; number of copies required; and sources for more information. Items included in these instructions may be supplemented by the NRA.

(c) The following information is needed to permit consideration in an objective manner. NRA's will generally specify topics for which additional information or greater detail is desirable. Each proposal copy shall contain all submitted material, including a copy of the transmittal letter if it contains substantive information.

(1) Transmittal Letter or Prefatory Material.

- (i) The legal name and address of the organization and specific division or campus identification if part of a larger organization;
- (ii) A brief, scientifically valid project title intelligible to a scientifically literate reader and suitable for use in the public press;
- (iii) Type of organization: e.g., profit, nonprofit, educational, small business, minority, women-owned, etc.;
- (iv) Name and telephone number of the principal investigator and business personnel who may be contacted during evaluation or negotiation;
- (v) Identification of other organizations that are currently evaluating a proposal for the same efforts;
- (vi) Identification of the NRA, by number and title, to which the proposal is responding;
- (vii) Dollar amount requested, desired starting date, and duration of project;
- (viii) Date of submission; and
- (ix) Signature of a responsible official or authorized representative of the organization, or any other person authorized to legally bind the organization (unless the signature appears on the proposal itself).

(2) Restriction on Use and Disclosure of Proposal Information. Information contained in proposals is used for evaluation purposes only. Offerors or quoters should, in order to maximize protection of trade secrets or other information that is confidential or privileged, place the following notice on the title page of the proposal and specify the information subject to the notice by inserting an appropriate identification in the notice. In any event, information contained in proposals will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the notice.

Notice

Restriction on Use and Disclosure of Proposal Information

The information (data) contained in *[insert page numbers or other identification]* of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract (or other agreement) is awarded on the basis of this proposal the Government shall have the right to use and disclose this information (data) to the extent provided in the contract (or other agreement). This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

(3) **Abstract.** Include a concise (200-300 word if not otherwise specified in the NRA) abstract describing the objective and the method of approach.

(4) **Project Description.**

- (i) The main body of the proposal shall be a detailed statement of the work to be undertaken and should include objectives and expected significance; relation to the present state of knowledge; and relation to previous work done on the project and to related work in progress elsewhere. The statement should outline the plan of work, including the broad design of experiments to be undertaken and a description of experimental methods and procedures. The project description should address the evaluation factors in these instructions and any specific factors in the NRA. Any substantial collaboration with individuals not referred to in the budget or use of consultants should be described. Subcontracting significant portions of a research project is discouraged.
- (ii) When it is expected that the effort will require more than one year, the proposal should cover the complete project to the extent that it can be reasonably anticipated. Principal emphasis should be on the first year of work, and the description should distinguish clearly between the first year's work and work planned for subsequent years.

(5) **Management Approach.** For large or complex efforts involving interactions among numerous individuals or other organizations, plans for distribution of responsibilities and arrangements for ensuring a coordinated effort should be described.

(6) **Personnel.** The principal investigator is responsible for supervision of the work and participates in the conduct of the research regardless of whether or not compensated under the award. A short biographical sketch of the principal investigator, a list of principal publications and any exceptional qualifications should be included. Omit social security number and other personal items which do not merit consideration in evaluation of the proposal. Give similar biographical information on other senior professional personnel who will be directly associated with the project. Give the names and titles of any other scientists and technical personnel associated substantially with the project in an advisory capacity. Universities should list the approximate number of students or other assistants, together with information as to their level of academic attainment. Any special industry-university cooperative arrangements should be described.

(7) **Facilities and Equipment.**

- (i) Describe available facilities and major items of equipment especially adapted or suited to the proposed project, and any additional major equipment that will be required. Identify any Government-owned facilities, industrial plant equipment, or special tooling that are proposed for use. Include evidence of its availability and the cognizant Government points of contact.
- (ii) Before requesting a major item of capital equipment, the proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative. Where such arrangements cannot be made, the proposal

should so state. The need for items that typically can be used for research and non-research purposes should be explained.

(8) Proposed Costs (U.S. Proposals Only).

- (i) Proposals should contain cost and technical parts in one volume: do not use separate "confidential" salary pages. As applicable, include separate cost estimates for salaries and wages; fringe benefits; equipment; expendable materials and supplies; services; domestic and foreign travel; ADP expenses; publication or page charges; consultants; subcontracts; other miscellaneous identifiable direct costs; and indirect costs. List salaries and wages in appropriate organizational categories (e.g., principal investigator, other scientific and engineering professionals, graduate students, research assistants, and technicians and other non-professional personnel). Estimate all staffing data in terms of staff-months or fractions of full-time.
- (ii) Explanatory notes should accompany the cost proposal to provide identification and estimated cost of major capital equipment items to be acquired; purpose and estimated number and lengths of trips planned; basis for indirect cost computation (including date of most recent negotiation and cognizant agency); and clarification of other items in the cost proposal that are not self-evident. List estimated expenses as yearly requirements by major work phases.
- (iii) Allowable costs are governed by FAR Part 31 and the NASA FAR Supplement Part 1831 (and OMB Circulars A-21 for educational institutions and A-122 for nonprofit organizations).
- (iv) Use of NASA funds--NASA funding may not be used for foreign research efforts at any level, whether as a collaborator or a subcontract. The direct purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted. Additionally, in accordance with the National Space Transportation Policy, use of a non-U.S. manufactured launch vehicle is permitted only on a no-exchange-of-funds basis.

(9) Security. Proposals should not contain security classified material. If the research requires access to or may generate security classified information, the submitter will be required to comply with Government security regulations.

(10) Current Support. For other current projects being conducted by the principal investigator, provide title of project, sponsoring agency, and ending date.

(11) Special Matters.

- (i) Include any required statements of environmental impact of the research, human subject or animal care provisions, conflict of interest, or on such other topics as may be required by the nature of the effort and current statutes, executive orders, or other current Government-wide guidelines.
- (ii) Proposers should include a brief description of the organization, its facilities, and previous work experience in the field of the proposal. Identify the cogni-

zant Government audit agency, inspection agency, and administrative contracting officer, when applicable.

(d) Renewal Proposals.

(1) Renewal proposals for existing awards will be considered in the same manner as proposals for new endeavors. A renewal proposal should not repeat all of the information that was in the original proposal. The renewal proposal should refer to its predecessor, update the parts that are no longer current, and indicate what elements of the research are expected to be covered during the period for which support is desired. A description of any significant findings since the most recent progress report should be included. The renewal proposal should treat, in reasonable detail, the plans for the next period, contain a cost estimate, and otherwise adhere to these instructions.

(2) NASA may renew an effort either through amendment of an existing contract or by a new award.

(e) Length. Unless otherwise specified in the NRA, effort should be made to keep proposals as brief as possible, concentrating on substantive material. Few proposals need exceed 15-20 pages. Necessary detailed information, such as reprints, should be included as attachments. A complete set of attachments is necessary for each copy of the proposal. As proposals are not returned, avoid use of "one-of-a-kind" attachments.

(f) Joint Proposals.

- (1) Where multiple organizations are involved, the proposal may be submitted by only one of them. It should clearly describe the role to be played by the other organizations and indicate the legal and managerial arrangements contemplated. In other instances, simultaneous submission of related proposals from each organization might be appropriate, in which case parallel awards would be made.
- (2) Where a project of a cooperative nature with NASA is contemplated, describe the contributions expected from any participating NASA investigator and agency facilities or equipment which may be required. The proposal must be confined only to that which the proposing organization can commit itself. "Joint" proposals which specify the internal arrangements NASA will actually make are not acceptable as a means of establishing an agency commitment.

(g) Late Proposals. Proposals or proposal modifications received after the latest date specified for receipt may be considered if a significant reduction in cost to the Government is probable or if there are significant technical advantages, as compared with proposals previously received.

(h) Withdrawal. Proposals may be withdrawn by the proposer at any time before award. Offerors are requested to notify NASA if the proposal is funded by another organization or of other changed circumstances which dictate termination of evaluation.

(i) **Evaluation Factors.**

- (1) Unless otherwise specified in the NRA, the principal elements (of approximately equal weight) considered in evaluating a proposal are its relevance to NASA's objectives, intrinsic merit, and cost.
- (2) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission.
- (3) Evaluation of its intrinsic merit includes the consideration of the following factors of equal importance:
 - (i) Overall scientific or technical merit of the proposal or unique and innovative methods, approaches, or concepts demonstrated by the proposal.
 - (ii) Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.
 - (iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in achieving the proposal objectives.
 - (iv) Overall standing among similar proposals and/or evaluation against the state-of-the-art.
- (4) Evaluation of the cost of a proposed effort may include the realism and reasonableness of the proposed cost and available funds.

(j) **Evaluation Techniques.** Selection decisions will be made following peer and/or scientific review of the proposals. Several evaluation techniques are regularly used within NASA. In all cases proposals are subject to scientific review by discipline specialists in the area of the proposal. Some proposals are reviewed entirely in-house, others are evaluated by a combination of in-house and selected external reviewers, while yet others are subject to the full external peer review technique (with due regard for conflict-of-interest and protection of proposal information), such as by mail or through assembled panels. The final decisions are made by a NASA selecting official. A proposal which is scientifically and programmatically meritorious, but not selected for award during its initial review, may be included in subsequent reviews unless the proposer requests otherwise.

(k) **Selection for Award.**

- (1) When a proposal is not selected for award, the proposer will be notified. NASA will explain generally why the proposal was not selected. Proposers desiring additional information may contact the selecting official who will arrange a debriefing.
- (2) When a proposal is selected for award, negotiation and award will be handled by the procurement office in the funding installation. The proposal is used as the basis for negotiation. The contracting officer may request certain business data and may forward a model award instrument and other information pertinent to negotiation.

(l) Additional Guidelines Applicable to Foreign Proposals and Proposals Including Foreign Participation.

(1) NASA welcomes proposals from outside the U.S. However, foreign entities are generally not eligible for funding from NASA. Therefore, unless otherwise noted in the NRA, proposals from foreign entities should not include a cost plan unless the proposal involves collaboration with a U.S. institution, in which case a cost plan for only the participation of the U.S. entity must be included. Proposals from foreign entities and proposals from U.S. entities that include foreign participation must be endorsed by the respective government agency or funding/sponsoring institution in the country from which the foreign entity is proposing. Such endorsement should indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

(2) All foreign proposals must be typewritten in English and comply with all other submission requirements stated in the NRA. All foreign proposals will undergo the same evaluation and selection process as those originating in the U.S. All proposals must be received before the established closing date. Those received after the closing date will be treated in accordance with paragraph (g) of this provision. Sponsoring foreign government agencies or funding institutions may, in exceptional situations, forward a proposal without endorsement if endorsement is not possible before the announced closing date. In such cases, the NASA sponsoring office should be advised when a decision on endorsement can be expected.

(3) Successful and unsuccessful foreign entities will be contacted directly by the NASA sponsoring office. Copies of these letters will be sent to the foreign sponsor. Should a foreign proposal or a U.S. proposal with foreign participation be selected, NASA's Office of External Relations will arrange with the foreign sponsor for the proposed participation on a no-exchange-of-funds basis, in which NASA and the non-U.S. sponsoring agency or funding institution will each bear the cost of discharging their respective responsibilities.

(4) Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

- (i) An exchange of letters between NASA and the foreign sponsor; or
- (ii) A formal Agency-to-Agency Memorandum of Understanding (MOU).

(m) **Cancellation of NRA.** NASA reserves the right to make no awards under this NRA and to cancel this NRA. NASA assumes no liability for canceling the NRA or for anyone's failure to receive actual notice of cancellation.

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APPENDIX C

PROPOSAL PROCESSING, REVIEW, AND SELECTION

C.1 The General Process

NASA takes seriously its responsibility for ensuring that proposal material is treated with the utmost confidentiality and that proposals are evaluated fairly and objectively without conflict of interest on the part of the reviewers. Therefore, regardless of the address to which a NRA may direct proposals to be sent, it is NASA policy that NASA personnel will be in charge of and direct all aspects of the review and selection processes, including the identification and invitation of peer review personnel, in-person monitoring of the deliberations of any peer review panel, and the adjudication of conflicts of interest that may be declared by panel personnel. Also, all non-Government reviewers are prohibited from making unauthorized disclosure of proposal information and evaluation materials and/or information (see the representative Nondisclosure Agreement in Appendix E), whereas Government employees are bound by the proscriptions of Civil Service employment not to divulge confidential aspects of their duties. Although proposers are provided with explanations for the final decisions regarding their proposals, it is NASA policy to not release the identities of the reviewers themselves nor the minutes of panel deliberations that culminate in the final assessments of the proposals. NASA depends upon the scientific community involved as peer reviewers to acknowledge conflicts of interest when they exist, to maintain confidentiality of the proceedings and results both during and after a review process, and to provide the fairest and most competent peer review possible.

An overview of the process from proposal submission through selection is as follows:

- Each proposal submitted in response to a NRA is given a unique identification code that is maintained throughout the entire process, and a log of all proposals received is provided to the cognizant NASA program officer within a week of the due date.
- The program officer selects panel and/or mail reviewers based on their known expertise relevant to the content of each proposal and avoidance of conflicts of interest, and requests their reviews based on the evaluation criteria established in the NRA.
- Whether by mail or as a member of a panel, NASA instructs all reviewers to base their comments on the specified evaluation criteria, to maintain confidentiality of their activities and all proposal and review materials provided to them, and to avoid conflicts of interest. All reviewers not employed by the U.S. Government must submit a signed Nondisclosure Agreement before they are provided with any proposals.
- The scientific and technical merits of each proposal are determined by the peer reviewers, usually while meeting as a panel monitored by the cognizant program officer or another Headquarters Civil Servant (including any personnel serving under auspices of an Intergovernmental Personnel Act (IPA) appointment). The peer reviewers may also be asked to comment on the perceived programmatic and budgetary aspects of the proposals as well, but these comments are for NASA's information and generally are not considered binding.

- A recommendation for selection or nonselection of each proposal is developed by the cognizant program officer and presented to the Selecting Official (who is identified in the NRA) based on its science/technical peer review, any program-unique criteria (e.g., program balance and education/public outreach objectives), its relevance to the research objectives stated in the NRA and to NASA's strategic goals in general, and the available budget resources. Selections are then made by the NASA Selecting Official.
- After selection, each proposer is notified by letter or electronic mail of the disposition of his/her proposal and is offered a debriefing. In some cases the peer reviews will be directly sent to the proposer; in other cases, the debriefing may be only oral.
- Official notification of selection for the solicitation is then forwarded to the NASA Award Office, which will contact the proposing institution to negotiate funding through an appropriate award instrument.

C.2 Evaluation Criteria

[Appendix B, Part (i)]

As a general rule, the evaluation criteria in Appendix B, Part (i), as amended below by the words in *italics*, will apply to all NRA's, although they may be augmented and/or amended in each NRA:

"(i). Evaluation Factors.

"(1) Unless otherwise specified in the NRA, the principal elements (of approximately equal weight) considered in evaluating a proposal are its intrinsic merit, its relevance to NASA's objectives, and its cost. *The failure of a proposal to be rated highly in any one of these elements is sufficient cause for the proposal to not be selected.*

(2) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission *as expressed in its most recent Strategy documents and to the specific objectives and goals given in the solicitation to which the proposal is submitted.*

"(3) Evaluation of intrinsic merit includes consideration of the following factors

- (i) Overall scientific or technical merit of the proposal and/or unique and innovative methods, approaches, concepts, or advanced technologies demonstrated by the proposal;
- (ii) Offeror's capabilities, related experience, facilities, techniques, or unique combination of these which are integral factors for achieving the proposal's objectives;
- (iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in , achieving the proposal objectives; and
- (iv) Overall standing among similar proposals and/or evaluation against the state-of-the-art.

"(4) Evaluation of the cost of a proposed effort *shall* include the realism and reasonableness of the proposed cost, and *the comparison of that proposed cost to available funds. Low cost, while desirable, does not offset the importance of realism and reasonableness of the proposed budget.*"

Note that the NRA itself provides the focused, program-specific objectives that will define precisely what is meant by relevance in items (1) and (2) above. The evaluation forms given to both mail as well as panel reviewers will generally list (perhaps in abbreviated form) all criteria. Reviewers are instructed to judge each proposal against the stated evaluation criteria and not to compare proposals even if they propose similar objectives. Only NASA program officers may make binding comparisons of proposals in the context of his/her recommendation for selection.

C.3 Evaluation Processes

[Appendix B, Part (j)]

As a matter of both policy and practice, proposals submitted to NASA are almost always reviewed by panels composed of the proposer's professional peers who have been screened for conflicts of interest. In addition, panel reviews may be augmented by one or more mail reviews solicited for each proposal by the program officer that are made available to the panel reviewers once they convene. As a general rule and as based on its deliberations, a peer panel is authorized to wholly or partially accept or reject any such mail reviews. The final Consensus Review determined by the review panel is approved for completeness and clarity by the chairperson of the panel and the attending NASA program officer.

Reviewers are instructed not to compare proposals to each other but to base all comments against the evaluation criteria and objectives stated in the NRA. To help ensure uniformity, NASA asks its reviewers to document their findings using clear, cogent language that is understandable to the non specialist by means of perceived Major and Minor Strengths and Major and Minor Weaknesses. A Major Strength is considered an attribute of the proposal that clearly distinguishes it well above the standards set by the program objectives (including relevance to NASA's interests) and that provides compelling justification for the selection of the proposal, while a Minor Strength is considered a noteworthy attribute of the proposal compared to the objectives that may be a necessary though not sufficient cause for selection. Conversely, a Minor Weakness is defined as a noteworthy deficiency or flaw compared to program objectives but that could be corrected if addressed early in the period of performance (or that might be eliminated by a partial selection of the proposal; see Section 5.2 in this Appendix), whereas a Major Weakness is considered a very serious if not fatal flaw or deficiency compared to the objectives and which may be both necessary and sufficient to justify nonselection..

The number and significance of such discriminators are broadly related to the final evaluation of a proposal based on the following adjectival scale:

- Excellent – many Major and Minor Strengths, few if any Minor Weaknesses, and no uncorrectable Major Weaknesses; top priority for funding pending the availability of funds and programmatic balance.
- Very Good – a few Major and Minor Strengths, few if any Minor Weaknesses, and no uncorrectable Major Weaknesses; second priority for selection assuming that funds are available, programmatic balance is not an issue, and an Excellent proposal having the same objectives is not displaced.
- Good – few if any significant Strengths or Weaknesses, and no uncorrectable Major Weaknesses; may be selected if funds permit after all Very Good and Excellent proposals.
- Fair – few if any Strengths but one or more Major Weakness; not selectable.
- Poor – no Strengths but many Minor and uncorrectable Major Weaknesses; not selectable.

It is important to note that defining this adjective scale in this way means that a proposal having few if any Major or Minor Strengths, nor few if any Major or Minor Weaknesses, may be judged as “Good,” whereas the determination of strengths of increasing number and significance improves its rating and, conversely, a finding of weaknesses of increasing number and significance lowers its rating.

C.4 Conflict of Interest and Confidentiality [Appendix B, Parts (a)(1), (a)(2), & (c)(2)]

The issues of conflict of interest and confidentiality are of critical importance to the peer review process. All reviewers of NASA proposals are directed to avoid not only actual but also any apparent conflicts of interest and to maintain confidentiality about all activities involved in the review process. In a worst case, a selection process could be nullified by the *post facto* disclosure of a conflict of interest or breach in confidentiality. Reviewers are personally responsible for identifying conflict of interest situations and maintaining confidentiality regarding each proposal that they handle or to which they may be exposed. Regardless of whether the review process is by mail or by a convened panel, the presiding NASA program officer address and adjudicates conflicts of interest based on the following general guidelines:

Every reviewer agrees to avoid conflicts of interest and to maintain the confidentiality of his/her participation in and the results of the review process by signing a Nondisclosure Agreement in advance of being sent any proposals (a generic version of this Agreement is given in Section 6 of Appendix E). By signing a Nondisclosure Agreement a reviewer agrees to abide by its guidelines for conflict of interest and confidentiality. Should an unanticipated conflict arise or otherwise become known during the course of examining the proposal under review, the reviewer must inform the cognizant NASA program officer and cease participation pending a NASA decision on the issue. The following guidelines are used to decide if a conflict exists:

- An institutional conflict of interest exists if the reviewer is from the same organization as the proposal’s PI, and may or may not exist if the reviewer is from the

same organization as any Co-I based on the relative proximity of his/her institutional affiliations.

- A conflict exists if the proposing PI has signed a contract for employment at the reviewer's institution for anytime during the proposal's requested period of performance
- A professional conflict exists if the reviewer has recently (within the last three years) been the graduate student advisee or advisor of the PI, or has collaborated within the last two years with the PI on a joint research activity.
- A personal conflict exists if the reviewer is related by family or marriage to the PI or any Co-I, or if the reviewer declares him/herself to be an especially close personal friend or adversary of the PI.
- A financial conflict exists if the reviewer or any member of his/her immediate family would monetarily benefit in any way by the selection and funding of the proposal.
- Usually a conflict of interest is not considered meaningful if the reviewer is only a casual professional colleague with a proposing PI or Co-I (e.g., contemporaneous service on an advisory committee or co-author on published research papers three years or more in the past). Likewise, conflicts of interest of any kind are usually not considered for Collaborators on proposals (which by definition are unfunded by the proposal).

NASA makes every effort to never allow a reviewer to ever see a proposal with which a conflict of interest is known to exist. Should that circumstance inadvertently happen NASA's reviewers are instructed to immediately return the proposal and is disbarred from participation in any way in its review. Occasionally NASA must ask personnel to participate on a panel that will consider one or more proposals for which the reviewer does have conflicts of interest. In cases like this, the reviewer is excused from the panel meeting during all deliberations of that proposal, and in some cases may also be excused from the deliberation of any other proposals that are judged to be in direct programmatic competition with the conflicted proposal.

Disclosure by a reviewer of the proposals and his/her evaluation materials and discussions is never condoned by NASA under any circumstances at any time, even after the selections are announced. Since the review process is not complete until the selections are announced, a breach of confidentiality of the review process could result in the entire selection process for an NRA being declared invalid. Just as serious, but on a more personal basis, unauthorized disclosure of privileged review information may lead to the proposer and/or his/her proposing colleagues to make critical career decisions based on erroneous, preselection hearsay information.

C.5 Selection Procedures

C.5.1 General Procedures

[Appendix B, Parts (j) & (k)]

After all reviews and evaluations are completed, the program officer develops a recommendation for selection based on the results of each proposal's intrinsic merit, its

overall relevance to the program objectives as stated in the NRA (including programmatic factors such as balance between objectives or disciplines), and the realism and reasonableness of the proposed costs as compared to the available budget. The program officer then presents and defends this recommendation before the NASA Selecting Official identified in the NRA, who then selects the proposals to be funded. As soon as possible after the selection is concluded, the Selecting Official or program officer informs each proposer of the selection or declination of his/her proposal by postal letter or electronic mail and offers a debriefing. However, such correspondence does not constitute an award to the selected proposer nor a commitment to transmit funds; see Appendix D.

C.5.2 Partial Selections

[Appendix B, Part (k)]

Appendix B, Part (k), is augmented by including Paragraph (3) as follows:

"(3) NASA may elect to offer selection of only a portion of a proposed investigation, usually at a level of support reduced from that requested in the original proposal. In such a case, the proposer will be given the opportunity to accept or decline selection based on the reduced effort and/or budget. If the proposer accepts such an offer, a revised budget and statement of work must be submitted before funding action on the proposal can be initiated. If the proposer declines the offer of a partial selection, the offer of selection may be withdrawn in its entirety by NASA."

C.5.3 Disclosure of Selections and Nonselections

For selected proposals, NASA considers the Proposal Title, the Principal Investigator's name and institution, and the Proposal Summary to be in the public domain and will post this information on an appropriate publicly accessible location. Therefore, prospective proposers should refer to Section 2.3.1 in this Guidebook as well as Appendix B, Part (a)(2) for guidance on the preparation of proposal summaries in anticipation of public disclosure. Selected proposers are free but not required by NASA to release any additional information about their proposals that they may choose.

It is NASA policy not to release any information about any of the non selected proposals.

C.6 Debriefing of Proposers

A proposer has the right to be informed which major factor(s) led to the acceptance or rejection of his/her proposal. Such debriefings may be entirely oral (usually by telephone) or entirely in writing, or a combination of the two. A PI can request an in-person debriefing at the NASA facility that issued the NRA but NASA funds cannot be used to defray travel costs. Note that nonselected proposers should be aware that owing to the shortage of budget resources, proposals of nominally high intrinsic and programmatic merits submitted for NASA's NRA's are routinely declined.

Non selection does not restrict the submission of a similar proposed effort by the same proposer(s) for appropriate future competitions. However, proposers are strongly urged to carefully consider the entirety of comments offered during their debriefing before making the decision to resubmit the same, or nearly the same, proposal.

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APPENDIX D

PROPOSAL AWARDS AND CONTINUED SUPPORT

D.1 New Awards

D.1.1 Awards to NASA Centers

A selected proposal from a NASA Center is funded directly by NASA Headquarters through a Research and Technology Operating Plan (RTOP) to the Center for administration.

D.1.2 Awards to Non-NASA Organizations

A NASA award is signed only by a NASA Grant or Contracting Officer (hereafter called an "Award Officer" for the purposes of this Guidebook) and is addressed to the proposing institution. Only an appointed NASA Award Officer can make commitments, obligations, or awards on behalf of the Agency and authorize the expenditure of funds. As a professional courtesy, this award will be preceded by notification by electronic mail or postal mail from the program officer to the Principal Investigator. However, no commitment on the part of NASA or the Government may be inferred from communication, even if in writing, from the NASA program officer.

NASA chooses the funding vehicle best suited for the project and the proposing institution. This can be a grant, a contract, an interagency agreement, or a cooperative agreement. It is for the purpose of aiding NASA in choosing the appropriate award instrument that the *Cover Page* (see Appendix E, Section 3) format asks the proposer to designate his/her type of organization (e.g., profit, nonprofit, etc., as defined in Section 1.4.1 of this Guidebook; see also Appendix B, Part (c)(1)(iii)) as well as the NASA Grant and Cooperative Agreement Handbook).

- Grant — A funding instrument used by the Government to accomplish a public purpose of support or stimulation authorized by Federal statute. The objective of a grant is the general enhancement of the field of scientific and technical programs of interest to NASA. The recipient of the grant is an institution, not the Principal Investigator, although the PI is responsible for conduct of the project. No substantial technical involvement is expected between NASA and the recipient, nor does the Government direct the research by the PI.
- Contract — A mutually binding legal commitment between the Government and a contractor whose principal purpose is acquisition by purchase, lease, or barter of property or services from the contractor for the direct benefit to or use by the Government. The Principal Investigator is responsible for scientific conduct of the project. In general, contracts are negotiated and have deliverable products, i.e., the Government "purchases" a product that, in the case of an NRA, is a study

in a specified area of basic research. Normally no fee or profit is paid under cost contracts with educational institutions or nonprofit organizations, as well as cost-sharing contracts with any type of entity. Non cost-sharing contracts with commercial organizations are fee bearing.

- Interagency Agreement — A transaction by which one Government agency needing supplies or services (the requesting agency) obtains them from another Government agency (the servicing agency). Such agreements are worked out in direct contact by NASA administrative personnel with those of the other agency.
- Cooperative Agreement — An agreement similar to a grant with the exception that NASA and the recipient are each expected to have substantial technical interaction for the performance of the project.

Selected investigators are urged to work with their own institution's grants/contracts office to understand which funding vehicle is being used as the source of support for their investigation, since the reporting requirements vary with the type of funding mechanism as do deadlines.

For all of these types of awards, NASA agrees to provide a specific level of support for a specified period of time. Owing to the intrinsic yearly nature of the Federal budget process, funding is usually only provided in increments of one year at a time, although there can be exceptions to this rule. If the award funding is to be provided on a yearly basis, the recipient receives an award supplement for the successive years provided that funds are available and that the results reported through the Yearly Progress Reports warrant further support (Note: funding supplements are sometimes called "renewals;" see also Section 4 below in this Appendix). NASA has some programs that fund selected tasks for up to five years, although in such cases they are subject to peer evaluation after the first three years.

The award period begins on the effective date specified in the award and runs until the indicated expiration date. Expenses incurred within the 90-day period preceding the effective date of the award of a grant or cooperative agreement may be authorized by the recipient organization but such expenses are made at the recipient's risk. Expenses after the scheduled expiration date of the award may be made only to honor documented commitments made on or before the expiration date.

D.2 Requests for Augmentation Funding

Occasionally a selected investigation may have a valid need for additional funding due to unforeseen circumstances (e.g., the failure of a critical piece of equipment, or unanticipated increase in costs of an approved item or labor rates). In such cases, the proposer may request an augmentation to his/her grant by submitting a letter proposal to the cognizant program officer, with a copy to the Award Officer, that describes why the increase is needed, the impact to the selected investigation if the augmentation is not

approved, and a budget for the augmentation authorized by signature of his/her institution. The program officer will review such requests as soon as possible and make a recommendation for funding or not. If the decision is favorable, the recipient must have written approval from a NASA Award Officer for an increase to his/her approved budget before incurring expenses beyond the authorized award. In any case, such requests for additional funding should be made only for the most extreme and demanding of circumstances since NASA funding reserves are always extremely limited, and there can be no request to NASA for an augmentation to an award during a no cost extension.

The procedure described above applies only to grant awards and cooperative agreements with non-profit organizations. Cost growth on a Cooperative Agreement with a for-profit organization is the responsibility of the recipient. Finally, any increase in scope on a contract is a subject to negotiation and prior approval of the Contracting Officer.

D.3 No Cost Extensions

The need for a No Cost Extension of an award can occur when a Principal Investigator for a selected investigation realizes that they cannot complete the objectives of the proposed project before its originally specified expiration date. In such cases, the following policies apply:

- In the case of most grants or a cooperative agreement with nonprofit entity, the recipient organization may unilaterally initiate a one-time No Cost Extension of the award's expiration date for up to 12 months by notifying the NASA Award Officer in writing of the revised date and the justification for the extension at least ten days before the end of the period of performance. NASA has the right to deny the extension if it is determined that it is merely for the purpose of using unobligated balances, if the extension may require additional funds; or if the extension involves any change in the approved objectives or scope of the project.
- In the case of a contract, NASA authorizes the No Cost Extension based on written request by the recipient organization to their NASA Award Officer in sufficient time to receive approval. Investigator's may not make new commitments or incur new expenditures after the established expiration date until an extension is formally granted.

See paragraphs 1260.23 and 1260.1255(e)(2) of the Grants and Cooperative Agreements Handbook (see Appendix A for Web site) for further details.

D.4 Funding Continuation ("Renewals") of Multiple Year Awards

It is NASA's usual policy to award multiple year grants in which cases the proposer must request a supplement (which NASA prefers to use instead of the ambiguous term "renewal") to receive the funding for each successive year of the award. A proposal for a supplement to an existing award consists of a letter signed by an institutional

representative that identifies the original proposal, a Yearly Progress Report, and a statement of work for the coming period. A revised budget for the next year is not required if the anticipated expenditures are within plus/minus twenty percent of the original budget, if it has been approved by the Award Technical Officer, if the research has not appreciably changed in scope, and if any planned purchases of equipment have not changed.

If there are changes anticipated to the original proposal, especially for the budget, those parts no longer current must be updated with appropriate documentation (commensurate with that submitted for the original proposal), and signed by the an institutional representative. Exact details of what materials are required and where they are to be sent will be provided by the NASA Award Office, but as a general rule, at least 60 days prior to the award anniversary date a copy of the Yearly Progress Report must be sent to the cognizant program officer while a complete set of materials must be sent to the cognizant NASA Award Office.

These procedures do not apply to cooperative agreements with for-profit entities.

D.5 Completing as Award

At the completion of a grant or cooperative agreement, certain reports are required by NASA. Final requirements will vary depending on the type of the grant or cooperative agreement awarded and will be specified in the award document. For a research grant, one of the most common award types, the following final reports are generally required:

- Final Federal Cash Transaction Report (SF 272)
- Summary of Research
- Subject Inventions Final Report
- Final Inventory Report of Federally-Owned Property

APPENDIX E

PROPOSAL FORMS AND CERTIFICATIONS

E.1 Overview

Starting in calendar year 2001 the five program offices at NASA Headquarters that issue solicitations for research proposals are now using a unified procedures based on inputs of certain key materials through the World Wide Web for new proposals, as well as for Yearly and Final Progress Reports of the selected tasks. In all cases, the Web address for all of these inputs will be specified in the NRA or award document as appropriate.

Upon accessing the specified Web site, the user is presented with a series of menus that allows the submission of any of following four items:

- Notice of Intent (NOI) to propose for a newly released solicitation (typically due about 30 days after the release date of the solicitation and 60 days before the proposal itself);
- Cover Page/Proposal Summary for a proposal that will be submitted by the stated due date in response to an open program solicitation (typically 90 days after release of the solicitation);
- Yearly Progress Report in support of the request for a funding supplement to an existing multiple year award (due 60 days in advance of the anniversary date of the award); and
- Summary of Research for an award that has completed its period of performance, which is due 90 days after the end of the award period.

Note that when first entering this Web site the user will be asked to identify him/herself in order to receive a unique password that will enable his/her quick entry and use of this master site on subsequent occasions. Likewise, once a proposer has entered a Notice of Intent for a given solicitation, he/she will be issued a unique identification number for that proposal that will enable the generation of the Cover Page/Proposal Summary using the NOI information as a base (although full editing capability is allowed). Once an award is issued by NASA in response to a submitted proposal, NASA's award identification number will serve as a password to allow the submission of the Yearly Progress Reports and the Summary of Research.

E.2 Notice of Intent to Propose

The Notice of Intent (NOI) to propose enables NASA to prepare for and expeditiously carry out the peer review process (see also Section 3.1 in this Guidebook). Therefore, interested proposers are encouraged to submit as accurate an NOI as possible on the schedule specified in the NRA. Upon entering the master proposal Web site noted in Section 1 above, the potential proposal will be find a menu for open NRA's for which the

NOI due date has not passed. Upon selecting the NRA of interest, at a minimum the following information will be requested (note: occasionally additional information may be requested based on the nature of the NRA):

- Reference to the NRA by its alpha-numeric identifier (e.g., NRA 99-OSS-50; note: this information will appear automatically upon selection from the menu);
- The name, postal and E-mail addresses, and telephone number of the Principal Investigator and all Co-Investigator(s);
- A brief, descriptive title of the anticipated investigation; and
- A brief description of the primary research area(s) and objective(s) of the anticipated investigation.

E.3 Cover Page/Proposal Summary

A fully completed and accurate *Cover Page/Proposal Summary* is required as the preface to every proposal submitted to a NRA. It is produced by entering the master proposal Web site, entering the identification number received when the NOI was submitted, and filling in the requested information. Note that if an NOI was entered, the information entered on the NOI will be carried over as a base for the Cover Page, although full editing capability will exist. If a NOI was not previously submitted, the instructions will enable the user to begin with a completely blank form. In either case, at a minimum the following information will be requested for the Cover Page (note: occasionally additional information may be requested based on the nature of the NRA):

- The alpha-numeric identifier and name of the NRA (note: these items will typically already be included on the electronic form on the Web site).
- The full legal name and physical address of the proposing organization, including specific division or campus identification if part of a larger organization;
- The designation of the type of proposing institution (using the definitions in Section 1.4.1 of this Guidebook).
- Full institutional physical mailing address, telephone and facsimile numbers, and E-mail address for the following individuals/offices:
 - i) The Principal Investigator (note: the printed hard copy also provides a block for the original PI signature and date).
 - ii) All Co-Investigator(s) who are identified by function in the proposal (see Section 1.2.2 and their organizational affiliation(s)).
 - iii) Office of Sponsored Programs at the proposing institution.
 - iv) Name and Title of the Authorizing Institutional Official (note: the printed hard copy provides a block for the original institutional signature).
- An abbreviated title of the proposed investigation (limit of 50 characters).
- The full title of the proposed investigation (of any length or may be same as abbreviated title) intelligible to a scientifically literate reader and suitable for use in the public press.

- The Award Number of any existing NASA award for which the newly proposed work is submitted as a logical successor activity.
- The proposed costs both by 12-month periods and for the total proposed period of performance.
- The date of proposal submission, desired starting date of the effort (not any sooner than 200 day after the proposal due date), and total duration of the project.
- An identification of other organizations that are currently evaluating a proposal for the same or substantially the same effort.

In addition, block of space, limited to 2500 characters including spaces (about half a page using the default formats in Section 2.2) is provided in the Web site for a self-contained *Proposal Summary* of the proposed research activity that is to include the following key information:

- A description of the key, central objectives of the proposal in terms that allow a nonspecialist to grasp its essence;
- A concise statement of the methods/techniques proposed to accomplish those objectives; and
- A statement of the perceived significance of the proposed work to NASA interests and programs.

Once the *Cover Page/Proposal Summary* is fully filled out, it is submitted electronically and also printed in hard copy in order to secure the signatures of the Principal Investigator and the Authorized Institutional Representative. This item is then reproduce for submission with the hard copies of the proposals.

E.4 Budget Summary

The *Budget Summary* is used by NASA's Program and Procurement personnel as an overview of the proposed costs for a limited number of categories. This form is also provided on the Web site specified in the NRA directly following the *Cover Page/Proposal Summary* for down loading by the proposer. It is to be submitted in hard copy as part of the proposal in the place indicated in the table of Parts of a Proposal in Section 2.3 of this Guidebook.

Column A of the *Budget Summary* is to be completed by the proposer after the detailed budget for the proposal is developed and requires knowledge of the following summary information for the total period of performance (specified by month/day/year), as well as for each year of the proposed period of performance:

Items Requested on the NASA Budget Summary

1. Direct Labor (salaries, wages, and fringe benefits)
2. Other Direct Costs:
 - a. Subcontracts
 - b. Consultants
 - c. Equipment
 - d. Supplies
 - e. Travel
 - f. Other
3. Facilities and Administrative Costs
4. Other Applicable Costs
5. SUBTOTAL--Estimated Costs
6. Less Proposed Cost Sharing (if any)
7. Carryover Funds (if any)
 - a. Anticipated amount
 - b. Amount used to reduce budget
8. Total Estimated Costs

The instructions and definitions for this *Budget Summary* are as follows (also repeated on the Web site):

- Provide a complete *Budget Summary* for the total as well as each individual year of the proposed period of performance.
 - Enter the proposed estimated costs in Column A (Columns B & C for NASA use only).
 - Provide, as attachments, detailed computations of all estimates in each cost category with narratives as required to fully explain each proposed cost as follows.
1. Direct Labor (salaries, wages, and fringe benefits): Attachments should list the number and titles of personnel, amounts of time to be devoted to the grant, and rates of pay.
 2. Other Direct Costs:
 - a. Subcontracts: Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.
 - b. Consultants: Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay (not to exceed the equivalent of the daily rate for Level IV of the Executive Schedule, exclusive of expenses and indirect costs).
 - c. Equipment: List separately. Explain the need for items costing more than \$5,000. Describe basis for estimated cost. General purpose equipment is not allowable as a direct cost unless specifically approved by the NASA Grant Officer. Any equipment purchase requested to be made as a direct charge under this award must include

the equipment description, how it will be used in the conduct of the basic research proposed and why it cannot be purchased with indirect funds.

- d. Supplies: Provide general categories of needed supplies, the method of acquisition, and the estimated cost.
 - e. Travel: Describe the purpose of the proposed travel in relation to the grant and provide the basis of estimate, including information on destination and number of travelers where known.
 - f. Other: Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate.
3. Facilities and Administrative (F&A) Costs: Identify F&A cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. If unapproved rates are used, explain why, and include the computational basis for the indirect expense pool and corresponding allocation base for each rate.
 4. Other Applicable Costs: Enter total explaining the need for each item.
 5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.
 6. Less Proposed Cost Sharing (if any): Enter any amount proposed. If cost sharing is based on specific cost items, identify each item and amount in an attachment.
 7. Carryover Funds (if any): Enter the dollar amount of any funds expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget (not applicable to 2nd-year and subsequent-year budgets submitted for award of a multiple year award).
- Total Estimated Costs: Enter the total after subtracting items 6 and 7b from item 5.

E.5 Certifications

In accordance with U.S. Code there are currently three certifications required from every institution, except from U.S. Federal institutions, submitting a proposal, namely,

- Debarment, Suspension, and Other Responsibility Matters;
- Lobbying for Contracts, Grants, Loans and Cooperative Agreements (required only for proposals seeking a cumulative total in excess of \$100,000); and
- Compliance with NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs.

In order to reduce paper work required by the submitting institutions, language is now included on the printout of the proposal *Cover Page* that confirms that these certification requirements are met by the proposing institution once that printed item is signed by the Authorizing Institutional Representative and submitted with the proposal. Therefore,

these three Certifications are included in this Guidebook only for reference and information; they should not be submitted with the proposal.

In addition, proposals for programs in some NASA program offices will require specialized certifications, for example, the impact of research including environmental, human or animal care provisions, or other topics required by statute, Executive Order, or Government policies. If so, details will be given in the individual NRA's.

**Certification Regarding Debarment, Suspension, and
Other Responsibility Matters**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 14 CFR Part 1265, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- Have not within three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Certification Regarding Lobbying

- No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000 for each such failure.

**Assurance of Compliance with the National Aeronautics and Space Administration
Regulations Pursuant to Nondiscrimination in Federally Assisted Programs**

The _____
(Institution or organization on whose behalf this assurance is signed, hereinafter called "Applicant.")

HEREBY AGREES THAT it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352), Title IX of the Education Amendments of 1972 (20 U.S.C. 1680 et seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and the Age Discrimination Act of 1975 (42 U.S.C. 16101 et seq.), and all requirements imposed by or pursuant to the Regulation of the National Aeronautics and Space Administration (14 CFR Part 1250) (hereinafter called "NASA") issued pursuant to these laws, to the end that in accordance with these laws and regulations, no person in the United States shall, on the basis of race, color, national origin, sex, handicapped condition, or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives federal financial assistance from NASA; and HEREBY GIVES ASSURANCE THAT it will immediately take any measure necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of federal financial assistance extended to the Applicant by NASA, this assurance shall obligate the Applicant, or in the case of any transfer of which the federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the federal financial assistance is extended to it by NASA.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all federal grants, loans, contract, property, discounts or other federal financial assistance extended after the date hereof to the Applicant by NASA, including installment payments after such date on account of applications for federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign on behalf of the Applicant.

E.6. Sample Nondisclosure Agreement

PROPOSAL PEER REVIEW NONDISCLOSURE AGREEMENT, AND CONFLICT OF INTEREST AVOIDANCE

In the performance of peer review of proposals submitted to NASA, the undersigned may have access to or be furnished with information that contains unpublished research results, unpublished research ideas, and/or proprietary plans, information, and budgetary data. All NASA supervisory and management personnel and reviewers, and all non-NASA participants, are bound by Federal regulations to maintain the confidentiality of such information and to avoid conflicts of interest in the review process. (Note that Federal law prohibits Federal employees from making unauthorized disclosure of confidential information (18 U.S.C. 1905)). Therefore, with respect to any proposals that may be furnished to or discussed in the presence of the undersigned, or that the undersigned may have access to or learns about, the undersigned agrees:

- 1) to use such data and information only for the purpose of carrying out the requested proposal review;
- 2) to refrain from disclosing or discussing such data and information with submitters of proposals, other reviewers, non-NASA support personnel, or NASA personnel outside the meetings of any designated peer review sessions;
- 3) to refrain from copying in part or all of any proposals that may be provided;
- 4) to return to NASA all proposals that may be provided along with all review sheets and other forms that have been generated in the course of the review process, or to make other disposition of such materials as directed by NASA;
- 5) to exercise due care to avoid any real or apparent conflict of interest in carrying out any reviews (in particular, a reviewer is not permitted to take part in the review of a proposal that originates from his/her home institution; or if any of the proposal's personnel are closely related to the reviewer, e.g., household family members, partners, or professional associates; or if the reviewer has a financial interest in the proposing institution, e.g., ownership of stock or securities, employment, or arrangements for employment); and
- 6) to advise NASA of the disclosure of any information obtained from NASA that is disclosed, used, or handled in a manner inconsistent with this agreement.

Name (print/type)
Date

Institution

APPENDIX F

FREQUENTLY ASKED QUESTIONS

F.1 Who answers questions about an award?

Questions on technical matters prior to an award should be addressed to the NASA program officer listed in the original NRA. Questions on technical matters after an award are addressed to the Technical Monitor identified on the cover page of the award document. Questions about administrative and budgetary matters are addressed to the NASA Award (i.e., Grants or Contracting) Officer. The PI's institutional research/grants office will know this point of contact from the official award document. It is important for the PI to know the various points of contact, including his/her institution's research/grants office, the NASA Award Officer, the NASA Technical Monitor, and/or the NASA program officer. Note that the NASA Technical Monitor and program officer may be the same person.

F.2 Is all the information needed to submit a proposal contained in the NRA?

Starting with the formal publication of this Guidebook, a NRA will only contain information specific to the technical description of that one advertised program. The NRA will then refer prospective proposers to this Guidebook for all common or "default" requirements, policies, procedures, and formats to be used for proposals unless specifically exempted otherwise in the NRA. It is the intention of NASA to restrict exceptions to these standards to items that are unique to a given NRA.

F.3 Who is responsible for what?

The Principal Investigator is expected to provide scientific and technical leadership for the proposed research and the timely publication of results. The PI's institution has responsibility for general supervision of all award activities, especially for all fiduciary matters, and also for notifying NASA of any significant problems relating to financial or administrative matters, including issues of scientific misconduct. NASA is responsible for the appropriate and timely review, selection, and funding of proposals submitted in response to the NRA and for monitoring the selected proposals during their periods of performance.

F.4 Who determines the type of award to be made?

For non-NASA recipients, NASA determines the appropriate funding instrument (a grant, a contract, or a cooperative agreement, an interagency agreement, or an intra-NASA funding instrument) for each Award based on the nature of the program for which the competition was held and the type of institution.

F.5 Who monitors an award?

An Award is monitored by the NASA Technical Monitor or the Contract Officer's Technical Representative, who serves as an official resource to the NASA Grants or Contract Officer, respectively. This person is knowledgeable about the technical aspects of the award and provides scientific and technical advice, including reviews of progress reports, to the Award Officer. The Award Officer has ultimate responsibility to ensure that the award is properly administered, including technical, cost, and schedule aspects.

F.6 Is it "my" award?

Although the PI usually originates and writes the proposal and has technical/scientific leadership of the work, NASA's funding awards are issued to the proposing institution and not to the PI personally. Although a PI may use the term "my grant" (or contract or cooperative agreement), the distinction between the PI and the grant recipient is real, and the PI should understand the various responsibilities for the administration of the award.

F.7 Must every proposal include certain documents?

Awards for financial assistance are subject to certain statutory and other general requirements, such as compliance with the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and other laws and regulations, e.g., prohibition of discrimination; prohibition of misconduct in science and engineering; requirements for a drug-free workplace; restrictions on lobbying; requirements for patents and copyrights; and the use of U.S.-flag carriers for international travel. The signature on the Cover Page of the proposal by the authorizing Institutional Representative certifies that the proposing institution is cognizant of and in compliance with all applicable certifications, which for information purposes are given in Appendix E of this Guidebook.

F.8 Once an award has been implemented, for what must prior approval be requested?

Prior approval requirements are set forth in the FAR, NFS and the NASA Grant and Cooperative Agreement Handbook. Several of the most common situations requiring prior written authorization from NASA are:

- transfer of the project to another institution at which the PI takes employment;
- a substantive change in objectives or scope of the project;
- a change in the designation of the PI or a substantial change in the PI's commitment of effort;
- new or revised allocations for purchase of equipment;
- the intent to award a subcontract in excess of \$100,000 or to purchase equipment in excess of \$5000 that was not part of the original budget; and/or
- novation or change of name actions

The recipient organization requests approval for such actions from the NASA Award

Officer, who often will ask for a recommendation from the cognizant Technical Monitor. However, only the NASA Award Officer can officially approve or deny such requests.

F.9 What happens if the PI changes institutions?

When a PI leaves his/her organization during the course of an award to that institution, that organization has the option of nominating an appropriately qualified replacement PI or recommending termination of the award. In the former case, NASA has the right of approval of the recommended replacement PI. If the replacement is approved, the award continues at the original institution through its nominal period of performance. However, if NASA judges that participation of the original PI is critical to the project owing to his/her unique knowledge and capabilities, then NASA will seek the agreement of both the original and the new institutions for the implementation a new award at the PI's new institution to complete the project.

F.10 Who owns any equipment purchased through the award?

Title to most equipment purchased or fabricated for the purpose of conducting research by an academic institution or other nonprofit organization using NASA funds normally vests with the recipient institution of the award. In some instances, NASA may elect to take title but, if so, the recipient will be notified of that intention when the purchase is approved by NASA. Title to equipment acquired by a commercial organization using Federal funds provided through any type of award vests with the Government.

F.11 Can an award be suspended or terminated?

The award document will contain procedures that define conditions for suspension or termination of awards. For example, lack of adequate progress in meeting the objectives of the award or failure to submit required reports set forth in the award document on a timely basis may be grounds for termination of an award. Awards may also be terminated by mutual agreement. In the event of a termination, the recipient is not entitled to expend any more funds except to the extent required to meet commitments that in the judgment of NASA had become firm before the effective date of the termination. A suspension of advance payments may also occur when a recipient demonstrates an unwillingness or inability to comply with financial reporting requirements. Where this occurs, the recipient institution would be required to finance its operations with its own funds, and NASA would reimburse the recipient institution's costs. Advance payments would be reinstated upon corrective action by the recipient institution.

F.12 Are there required reports?

The two types of technical reports generally required for grants are as follows, both of which are to be submitted through a specified World Wide Web site using a unique identification number that will be given to the PI:

YEARLY PROGRESS REPORT -- For multiple year awards, NASA requires that a brief progress report be submitted to the program officer 60 days before the anniversary date of the award, in order to allow for the timely recommendation for a continuation of funding.

SUMMARY OF RESEARCH -- NASA requires a final summary of research report to be submitted to the NASA Awards Officer and the program officer for every award at the completion of the period of performance. This report should include substantive results from the work, as well as references to all published materials from the work and is due 90 days after the end of the award.

Other reports in addition to technical reports are required that include financial, property, invention or other specialized reports applicable for certain types of grants (such as education grants). The award document will include a complete list of required reports and schedules for their submission. Especially significant is the Federal Cash Transaction Report (SF 272) that is due at the end of each Federal fiscal quarter from the institution holding the award.

F.13 What is NASA's policy about releasing data and results derived through its sponsored research awards?

As a Federal Agency, NASA requires prompt public disclosure of the results of its sponsored research and, therefore, expects significant findings from supported research to be promptly submitted for peer reviewed publication, with authorship(s) that accurately reflects the contributions of those involved. Likewise, as a general policy and unless otherwise specified NASA no longer recognizes "proprietary" data rights; that is, all data collected through any of its funded programs are to be placed in the public domain at the earliest possible time following their validation and calibration. However, small amounts of data (for example, as might be taken during the course of a suborbital (rocket or balloon), Space Shuttle, or Space Station investigation) are usually left in the care of the Principal Investigator. In any case, NASA may require that any data obtained through a NRA award to be deposited in an appropriate public data archive as soon as possible after calibration and reduction. If so, NASA will negotiate with the PI for appropriate transfer of the data and, as necessary, may provide funds to convert the data into an easily used format using standard units.

F.14 How is NASA to be acknowledged in publications?

All publications of any material based on or developed under NASA sponsored projects should conclude with the following acknowledgement:

"This material is based upon work supported by the National Aeronautics and Space Administration under Grant/Contract/Agreement No. <xxxxxx> issued through the Office of XYZ <or ABC Program, as appropriate>."

Except for articles or papers published in peer-reviewed scientific, technical, or professional journals, the exposition of results from NASA supported research should also include the following disclaimer:

"Any opinions, findings, and conclusions or recommendations expressed in this article <or report, material, etc.> are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration."

Finally, without any exceptions all releases of photographic or illustrative data products must list NASA first on the credit line followed by the name of the PI organization, for example,

"Photograph <or illustration, figure, etc.> courtesy of NASA <or NASA Center managing the mission or program> and the <Principal Investigator institution>."

F.15 Can audits occur, and are they important?

Yes, Government auditors frequently check contracts, grants and cooperative agreements for evidence of fraud, waste, and/or mismanagement by the recipient organization. Therefore, it is important to keep clear and accurate records to avoid misunderstandings.

F.16 What are the uses of a No Cost Extension?

A No Cost Extension to an award allows the completion of the objectives for which the proposal was selected that have not been accomplished in the originally specified period of performance owing to unforeseen circumstances (e.g., the inability to hire a critically important graduate student or postdoctoral employee in time; the breakdown of a unique and critical piece of equipment; or the inability to coordinate important activities with Co-I's through circumstances beyond the control of the PI). A No Cost Extension is not to be implemented merely to use funds that are unspent because of the untimely planning of activities within the original period of performance. For a one time extension of a grant, the recipient must notify NASA in writing with the supporting reasons and revised expiration data at least 10 days before the expiration date specified in the award. For a contract, an appropriate request must be submitted for NASA's approval by the recipient institution. In either case, NASA will not accept requests for an augmentation to an award during a no cost extension, and any successor proposal that is selected will not be funded until a no cost extension has expired. See further details on No Cost Extensions in Section 3 of Appendix D of this Guidebook and paragraphs 1260.23 and 1260.1255(e)(2) of the Grants and Cooperative Agreements Handbook (see Appendix A for Web site).

F.17. Why are all these requirements and details about research awards necessary?

Funding for research using U.S. Federal monetary resources is a privilege accorded to U.S. institutions by NASA acting on behalf of the U.S. Congress and the public. The

recipient is legally obligated to use them appropriately and conscientiously to justify their continued appropriation through the Federal budget. This obligation necessarily entails attention to the details of how the award is competed and selected, and then how the selected activities are carried out, in order to provide public accountability of national resources throughout the process.

F.18. Why aren't all proposals that are highly rated by peer review selected for funding?

Although a proposal in response to a NRA may nominally be judged by peer review to be of intrinsically high merit, it still may not be selected owing to the programmatic issues of relevance to NASA's stated interests and/or limitations of the budget (see also Section 2 of Appendix C of this Guidebook). Regarding this latter factor, most of NASA's NRA's are oversubscribed by factors ranging typically from two to five, and at times can be even much higher. The entirety of the factors leading to a decision of selection or nonselection will be conveyed to the proposers during the course of a debriefing after selections are announced (see Section 6 of Appendix C).

F.19 Are proposals from NASA Centers subject to peer review, and are their budgets based on full cost accounting?

All proposals submitted in response to a NRA are subjected to exactly the same peer review process regardless of the submitting organization. In the near future, NASA is expecting to be operating on the basis of full cost accounting, which will be applicable to all research proposals submitted by its Centers and the Jet Propulsion Laboratory; this new accounting practice is being implemented as rapidly as possible.

F.20 Why is an award sometimes slow in being implemented after selection?

NASA is committed to implement awards within 46 days after selections are announced. However, sometimes additional materials are needed from the proposer (e.g., revised budgets and/or budget details) that can pace the activities that NASA must do to legally obligate Federal money; contracts and cooperative agreements with for-profit entities generally take longer owing to greater complexity. Finally, NASA's ability to distribute funds is dependent on the timely approval of its budget through the Federal budget process, which occasionally may be delayed.

F.21 Who may be listed as participating personnel on a proposal?

Every person who has agreed in writing (see Section 2.3.9) to perform a significant role in a proposed effort, even if at no cost, is entitled to be listed as a Co-I (see also Section 1.4.2). However, proposers are reminded that, since one of the nominal requirements for the Science/Technical/Management Section of a proposal is the justification of each key member of a proposal's team (see Section 2.3.4), then the stated contributions and qualifications of proposal personnel will be evaluated as part of the peer review process.

APPENDIX G

HISTORY OF AMENDMENTS

On Feb. 23, 2001, Section 1.6 was replaced in its entirety.